

A UNITED STATES
DEPARTMENT OF
COMMERCE
PUBLICATION



Storm Data

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL DATA SERVICE

JULY

1971

Volume 13

No. 7

Asheville, N. C.

1971

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Alabama									
Talladega, Talladega County	14	3:00 p	0	0	0	2	0	0	Electrical
Phil Campbell, Franklin County	14	Afternoon	0	0	0	0	4	0	Electrical
Sulligent, Lamar County	15	Afternoon	0	0	0	0	3	0	Hail
Madison County	15	9:45 p	0	0	0	0	0	0	Funnel
Anniston, Calhoun County	16	4:58 a	0	0	0	0	0	0	Funnel
North Alabama	15-16	10p-10a	0	0	0	0	6	5	Rain, wind, electrical
Opelika, Lee County	17	early morning	0	0	1	0	2	0	Electrical
Genevieve County	28	1:00 p	0	0	1	4	0	0	Electrical
Alaska		None	Reported						
Arizona									
Sierra Vista	16	3:05 p.			0	2	4	0	Tornado
Tucson	16	3:40 p.			0	0	5	0	Wind
Willcox	17	6:45 p.	1/8	300	0	0	4	0	Tornado
Liberty	19	Evening			0	2	4	0	Wind
Douglas	22	4:30 p.			0	0	4	4	Hail
Roosevelt Lake	25	Evening			3	1	0	0	Wind
Arkansas									
Sheridan - Grant County	4	1:30 p. to 2:00 p.	5	1 mi.			4		Wind
Newport - Jackson County	5	2:30 p.							Funnel Aloft
Extreme northeast Arkansas, Clay and Mississippi Counties	14	10:00 p. to 11:00 p.	75	1-3 miles	1	3	4		Wind/Hail
Arkansas (continued)									
West Memphis - Crittenden County	15	3:30 p.					3	3	Wind
Smackover - Union County	17	3:30 a.					1		Lightning
Forrest City - St. Francis County	26	5:20 p.							Tornado
Gillett - Arkansas County	28	11:50 a.							Funnel Aloft
Benton - Saline County	28	Evening					1		Lightning
California									
Colorado									
Adams County	2	12:55 p.m.							Hail
Phillips County	3	3:14 p.m.					3		Tornado
Yuma County	3	3:30 p.m.					2		Tornado
Kit Carson County	4	3:55 p.m.							Funnel Cloud
Kit Carson County	4	4:30 p.m.					2		Hail
Prowers County	4	5:45 p.m.							Hail
Phillips, Yuma, and Morgan Counties	4	Late p.m.						4	Hail
Douglas County	8	1:30 p.m.							Funnel Cloud
Colorado Springs	8	2:00-3:00 p.m.					4		Rain, Hail
Adams County	8	5:35 p.m.							Funnel Cloud
Colorado Springs	13	2:45-4:10 p.m.					4		Rain, Hail
Washington County	15	1:30 p.m.							Tornado
Lincoln County	15	5:45 p.m.							Hail
Kit Carson County	15	4:15 p.m.					2		Wind, Hail

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM	PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS							KILLED	INJURED	PROPERTY	CROPS		
Colorado (continued)										Florida (continued)										
La Junta	15	6:30-8:00 P.m.					4		Rain	Pompano Beach 8 NNE Ft. Lauderdale	02	7:03a							Funnel aloft	
									Heavy rain caused a flash flood, damaging streets and flooding stones and basements.											
Lincoln County	22	6:15 P.m.							Hail	Bristol Liberty Co.	03	2:00p			1	5	0	0	Lightning	
									Hailstones 3/4 inch diameter with 1 1/4 to 2 inches of rain in one hour reported 40 miles south of Limon. Amount of damage not reported.										A happy class reunion was brought to a tragic close when one man was killed by lightning and five others including three children were injured.	
Fremont County	23	11:50 a.m.							Funnel Cloud	13 SSE Palm Beach	03	8:44a							Waterspout	
									Reported 15 miles east of Salida.	Near Ft. Lauderdale	04	5:04p							Funnel aloft	
Larimer County	25	P.m.					4		Hail	10 NE Ft. Lauderdale	05	4:15p							Waterspouts (4)	
									Hail up to 1 inch diameter damaged crops in a 25 square mile area southeast of Loveland.										Four waterspouts were sighted.	
Arapahoe, Jefferson, and Denver Counties	25	P.m.					3		Hail, Rain, Funnel Cloud	Near Ft. Walton 8 SW Valparaiso	05	7:48p							Waterspout	
									At 2:15 golf ball size hail was reported in mountain areas west of Denver. A funnel cloud was reported at 4:15PM in the Aurora area, southeast of Denver. About 5:00PM wind gusts estimated at 60MPH, hail, and heavy rain up to one inch in 15 minutes caused local flooding and some other damages in several Denver areas. Hailstones 3/4 inch diameter were reported at 5:28PM 7 miles southeast of Denver.	St. Cloud Osceola Co.	06	abt. 2:00p			1	0	0	0	0	Lightning
																			A nineteen year old youth was killed instantly when he was struck by lightning while baling hay.	
Elbert County	28	8:00 P.m.							Hail	Apopka 16 NW Orlando	06	2:30p							Funnel aloft	
									Hailstones 1 3/4 inch diameter reported 2 miles west of Limon. No damage reported.	Englewood Sarasota Co.	06	evening	1/4	20	0	0	2	0	Tornado	
Teller County	28	2:54 P.m.							Hail										A small tornado touched down and did some damage in the Englewood Shopping Plaza area and at Englewood Boat and Motors, three boats were overturned and several sunk. Estimated damage \$500.	
									Hailstones 1 3/8 inches diameter reported at Woodland Park, 22 miles west-northwest of Colorado Springs. No damage reported.	South Beach Miami	07	afternoon			0	2	0	0	Lightning	
Rio Grande County	31	2:00-3:00 P.m.					4		Hail	Live Oak Suwannee Co.	08	1:30p	1/4	50	0	0	3	0	Tornado	
									Severe hail, with stones up to 3/4 inch diameter in some sections, damaged crops in an area 3 miles wide and 10 miles long, extending northeastward from a point 2 miles north of Monte Vista. Spotty hail damage was also reported in other areas of the San Luis Valley.										Two teenage boys struck by lightning while swimming were taken to Mount Sinai Hospital where they were treated for shock and released.	
Connecticut										Florida										
Statewide	1	3-8 P.m.					0	0	5	0	Thunderstorms	19 W Tampa	09	3:30p					Waterspout	
									Series of severe thunderstorms produced lightning and strong winds which caused extensive power outages along a ten-mile deep strip of shoreline from Milford to Stonington; in Woodstock and Putnam, Windham Co. and in south-central Hartford County where some local flooding occurred as well. Several boats were damaged when they broke their moorings in Milford harbor. Hail, encountered in clear air, punctured a radar nose cone and dented the wings of an executive jet over Chester, Middlesex Co. and wind then ripped away pieces of the cone. The jet landed safely in Mass. Heavy rains were responsible for dozens of vehicular accidents along southern roadways.	Tampa	09	3:55p			0	0	0	0	0	Hail - 1"
Westport, Fairfield Co. to East Haven, New Haven Co.	19	2:40-6:05 P.					0	0	5	0	Heavy rain	Apollo Beach 18 S Tampa	10	4:20p					Funnel aloft	
									Heavy downpours in series of thunderstorms accumulated 5.70 inches at Bridgeport and 4.46 inches at New Haven shattering most all-time short period excessive precipitation records at both stations. Storm sewers were unable to handle the flows and local flooding was common from Westport to East Haven.	Near Tampa	10	4:20p	1	50	0	0	4	0	0	Tornado
Norwalk, Fairfield Co.	19	2:55 p.	1 1/2	few	0	0	4	0	Tornado										A tornado touched down in a mobile home park near Riverview overturning three trailers and damaging five more. Observers said the tornado moved in from the North and headed Southwest. Damage estimated to be \$10,000.	
									Tornado, passing across Norwalk harbor into East Norwalk, destroyed 30 trees and moved a small building on golf course 4 feet off its foundation.	20 W Palm Beach	11	4:57p							Funnel aloft	
Waterbury, New Haven Co.	29	6:55 p.	short	200	0	2	5	0	Tornado, lightning	Apalachicola	12	12:10p							Waterspout	
									Tornado, moving east-northeastward across Main Street in the Oakville section of Waterbury, blew off factory roof and deposited 150 lb. pieces 200 yards away. Some residential roofs were damaged and many trees were broken or uprooted. Lightning strikes caused several power failures and injured two persons in their home.	New Smyrna Beach	12	evening			1	0	0	0	0	Lightning
Delaware		None	Reported							Jacksonville	13	early morning			0	0	4	0	Lightning	
Florida																			A lightning bolt apparently triggered a fire that caused an estimated \$11,500 damage to a warehouse.	
Wentz Clearwater 20 W Tampa	01	1:15p								1 S Palatka 37 S Jacksonville NAS	13	5:40p							Funnel aloft	
									Two waterspouts were sighted.	Clearwater	15	11:40a							Waterspout	
35 NE Orlando	02	2:46p								3 SE Orlando	16	4:20p			0	0	0	0	Hail - 3/4"	
W Jupiter 18 N Palm Bch	02	3:15p								Hollywood 8 SE Ft. Lauderdale	17	11:11a							Waterspout	
15 W Ft. Lauderdale	02	4:20p								1 S Pensacola	17	11:35a							Waterspouts (2)	
									Three funnels aloft were sighted. (3)	6 NE Palm Beach	18	6:45a							Funnel aloft	
Lakeland 29 E Tampa	02	4:36p	1	50	0	0	0	0	Tornado	10 NE Palm Beach	18	8:46a							Waterspout	
									There was a roaring sound heard but no funnel cloud could be seen for the heavy rain. Trees were blown down in the area. No significant damage was reported.	7 SW Palm Beach	18	4:04p								Funnel aloft
										25 WNW Ft. Lauderdale	18	5:16p							Funnel aloft	
										23 ENE Apalachicola	19	11:50a							Waterspout	
										14 SW Vero Beach	19	2:00p							Funnel aloft	
										Labelle 22 ENE Ft. Myers	19	4:55p							Funnel aloft	

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Florida (continued)									
9 Miami Beach	20	6:45a							Waterspout
13 SSE Ft. Lauderdale									
25 SE Tampa	20	2:00p	1/4	20	0	0	0	0	Tornado
					A tornado touched down briefly 4 miles Northeast of Ft. Lonesome. No damage was reported.				
Tallahassee	20	late afternoon			0	1	0	0	Lightning
					A twelve year old girl was slightly injured when she was standing near a T.V. set with her hand on the set when the lightning struck.				
Indiantown Martin Co.	20	evening			0	1	0	0	Lightning
					A 50 year old woman was slightly injured when lightning struck a telephone booth she was in.				
Anna Maria Manatee	21	8:02a							Waterspout
Clearwater	21	10:50a							Waterspout
Sunrise Near Ft. Lauderdale	21	daytime			1	0	0	0	Lightning
					A 30 year old man was killed when lightning struck him while he was on a tractor cutting hay.				
25 NNW Ft. Lauderdale	21	5:20p							Funnel aloft
7 W Sarasota 39 S Tampa	22	9:26a							Waterspout
Ruskin Hillsborough Co.	22	daytime			1	0	0	0	Lightning
					A 72 year old man was killed by lightning as he worked on a construction sight.				
56 ESE Tampa 10 S Lake Wales	22	1:30p	1	20	0	0	0	0	Tornado
					The Florida Highway Patrol reported this tornado touched down and then immediately dissipated with no significant damage.				
Clearwater	22	3:00p			0	0	4	0	Lightning
					Lightning struck a television antenna at a house causing more than \$15,000 damages when the bolt came through the wire and blew up a T.V. set in a bedroom of the house. No injuries reported.				
Ormond Beach Near Daytona Bch	22	afternoon			1	0	0	0	Lightning
					A 15 year old boy was struck and killed by lightning as he stood on the beach in front of a motel.				
Loxahatchee 9 W Palm Beach	22	6:45p							Funnel aloft
5 W Clearwater 20 W Tampa	23	10:36a							Waterspouts (2)
					Two waterspouts were sighted, they were moving southwestward.				
Near Frostproof 51 SSW Orlando	23	12:15p	1/4	10	0	0	0	0	Tornado
					The Florida Highway Patrol and the public reported a tornado touched down briefly. No reports of damage were received.				
10 W Lake Placid 49 E Ft. Myers	23	12:37p							Funnel aloft
Winter Park	24	mid-afternoon			0	2	3	0	Wind damage
					The windows were sucked in and pieces of glass were found deeply embedded in the ceiling and walls as a mid-afternoon thunderstorm wrecked a Winter Park Mall Ice Cream Store injuring 2 persons. Actual damage not known, estimated \$3,000.				
Venice 42 NW Ft. Myers	24	5:30p							Waterspout
Eartow Polk Co.	24	6:00p			0	1	0	0	Lightning
					A man was knocked semi-conscious while making a telephone call at a supermarket when lightning struck wires near the store while he was calling.				
Lake Wales Polk Co.	26	7:40p	1	500	0	0	2	0	Tornado
Lake Wales	26				A small tornado which touched down just west of Lake Wales left trees uprooted for hundreds of yards and pieces of tin scattered down a path stretching near a mile. It did damage to signs, T. V. antennae and roofs. An actual estimate of the damage was not available.				
3 SE Key West NAS	27	11:00a							Funnel aloft

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Florida (continued)									
25 W Vero Beach	27	4:10p							Funnel aloft
Blue Cypress 25 NW Miami	27	4:35p							Funnel aloft
St. Petersburg	28	1:30p			0	2	0	0	Lightning
					Two men slightly injured by lightning about 25 minutes apart during a thunderstorm in the St. Petersburg area.				
NE Sarasota	28	3:15p							Funnel aloft
Near Plant City 19 E Tampa	28	6:00p	1/4	20	0	0	0	0	Tornado
					A tornado touched down near Plant City and ripped up a light pole but no injuries were reported. Estimate of damage not available.				
22 NNE Miami	29	6:59a							Waterspout
Tarpon Springs	29	7:05p			Two funnels aloft were sighted.				Funnels aloft (2)
Bradenton	29	7:05p	1/4	20	0	0	1	0	Tornado
					A small tornado touched down in Bayshore Gardens 5 miles South of Bradenton. Minor damage.				
Lake Apopka Near Orlando	31	4:10p							Funnel aloft
Georgia Douglas County	6	6:15 p							Funnel Cloud
					Reported by a pilot 12 to 14 miles west northwest of the Atlanta Airport.				
Murray County	10	pm			0	0	4	0	Windstorm
					A 300 foot long chicken house was moved about 15 feet and wrecked. The house contained more than 15,000 chickens and many were killed.				
Columbus	12	1:20 p			0	0	4	0	Windstorm
					A small store was heavily damaged and other property received minor damage.				
Smyrna, Cobb County	14	4:00 p			0	0	4	0	Lightning
					One home was destroyed by fire after being struck by lightning. Other minor lightning damage was reported.				
Elberton	19	12 Noon	1/8	50	0	0	4	0	Tornado
					A granite shed was completely destroyed. Large timbers were splintered and sheet metal was scattered over a large area. Utility lines were knocked down and several trees were uprooted.				
Conyers, Rockdale County	19	12:15 p			0	0	4	0	Windstorm
					A new auto repair building was unroofed and other property was damaged.				
East Point, Fulton County	19	pm			0	0	4	0	Windstorm
					Roofs were damaged, trees uprooted and utility lines downed over a small area. One tree fell on a residence and electric service was interrupted for several hours.				
Warner Robins	19	7:30 p	1/16	20	0	0	4	0	Tornado
					Small storm touched down in a mobile home park, demolishing 2 trailers and damaging several others. Witnesses reported that the trailers were lifted and then exploded. Winds were described as sounding like a locomotive. No one was in either of the wrecked trailers.				
Wrens, Jefferson County	19	7:30 p	1/8	30	0	0	4	0	Tornado
					One residence was picked up and moved about 15 feet. Several large trees were uprooted or twisted off.				
Hawaii 10 to 15 Miles W of Ke-ahole Airport, North Kona, Hawaii Island	30	11:05 a.							Funnel clouds
					Six very dark rope-like funnel clouds moving northward in rain appeared to touch ocean surface from cumulus clouds with ragged bases estimated 1,500 feet and tops estimated 5,500 feet.				
Idaho 3 NW Burley, Minidoka County	7	7:00 p.m.	1	200	0	0	4	--	Wind
					Strong wind uprooted trees, damaged machinery.				
Payette, Payette County	8	8:30 p.m.	3	200	0	0	4	--	Wind, Lightning
					Strong winds accompanied by lightning and rain uprooted trees, shrubs and caused power outages in area. Wind gusts were credited with breaking out windows.				

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Idaho (continued)									
Pocatello, Bannock County	8	7:00 P.M.	4	300	0	0	3	--	Wind
									Wind associated with a thunderstorm unroofed building, downed signs and uprooted large trees.
NE Nez Perce, Central and N. Lewis Counties	9	6:00 P.M. Midnight	area	area	0	0	2	4	Hail
									Widely scattered hail storms with wind damaged crops from slight to 60 percent and wind damage to trees and some building roofs. The greater percent of the damage was noted in green and black peas.
2 South Twin Falls, Twin Falls County	15	7:00 P.M.	5	--	0	0	2	--	Lightning
									A 17-year old young man narrowly escaped being struck by lightning when a nearby cow was struck and killed.
Malta, Cassia County	16	p.m.	3	--	0	0	2	--	Lightning
									3,000 bales of hay were burned after being struck by lightning.
Nezperce National Forest	19	P.M.	area	area	0	0	4	--	Thunder-Lightning storms
									A flurry of storms passed across the Nezperce National Forest setting 5 forest fires that required firefighters to extinguish. Fire danger was high.
2 S Arco, Butte County	20	Afternoon	--	--	0	0	4	--	Lightning
									200-250 tons of hay were burned when stack was struck by lightning.
15 SE Montpelier, Bear Lake County	20	8:55 p.m.	5	1000	0	0	4	3	Heavy rain shower
									A 15-minute downpour of rain did extensive damage to roads, crops, and ranch yards when a 3-foot wall of water passed down a valley leaving in its wake debris and mud.
5 N Shoshone, Lincoln County	22	3:15 p.m.	--	--	0	0	4	--	Lightning
									A lightning bolt caused a fire which burned 250 tons of hay, corrals, hay bunks and loading chutes.
10 S Downey, Bannock County	22	Afternoon	3	400	0	0	0	4	Hail
									200-300 acres of grain was stripped south of Downey by a hard-hitting lengthy hailstorm.
Illinois									
Data not received by publication deadline.									
Indiana									
Indianapolis area	8	e. s. t. 9:00p.	?	?	0	0	3	3	Hail
									Scattered areas of 1/4 inch hail were reported.
Vermillion, Fountain, Parke Counties	9	About noon	?	?	0	0	3	3	Wind
									Damage to crops, houses, farm buildings and utility lines reported in vicinities of Gessie, Covington, Ferrysville and Catlin.
Carroll, Tipton, Grant Counties	9	Afternoon	?	?	0	5	4	3	Wind, lightning, rain
									Wind and rain damaged crops across Carroll County and wind caused some damage to property in Delphi. North of Tipton, two boys were injured by lightning. At Marlon, three persons were injured when a mobile home was swept 50 feet from its foundation.
Cross Plains, 1 mi. N	10	?			1	0	0	0	Lightning
									Fifteen year old boy killed by lightning.
Seymour area	15	About 7:00p.	?	?	0	0	3	3	Hail, wind, rain
									Wind, rain, and 1" diameter hail damaged crops and trees.
Monroe Reservoir	17	a.m.			1	0	0	0	Lightning
									Man killed by lightning while fishing from a boat.
Martinsville	17	Evening			0	0	4	0	Lightning
									Building destroyed by lightning caused fire.
North Vernon, 10 miles north	28	4:45p.	1/4	75	0	0	4	2	Tornado
									Residents on farm witnessed touchdown which caused extensive damage to farm buildings and some crops.
Iowa									
NW of Spencer, Clay County	4	4:00 p.							Funnel
Guthrie and Greene Counties ENE to Jackson and Dubuque Counties	8	0:30 a	200		0	11	7	7	Windstorm
									Zone of damage varied from 10 miles wide upward to 80 miles wide. Storm damage first reported near Pandora and Rippey passing across southern Boone County into Ames (1:12 a) with winds 80 mph or higher. Damage extensive from Ames to Independence (2:30 a) and moderate damage eastward to the Dubuque area (3:15 a).
Iowa (continued)									
									Extensive wind damage also reported at Nevada, Conrad, Beaman, State Center, Liscomb, Clemons, Reinbeck, Hudson, Trer, Gladbrook, Dysart and LaPorte City. Some hail (5% crop damage) reported. Radar indicated large area of cells with tops to 50-55 thousand feet. Two persons injured at Beaman, one in southern Black Hawk County, four near or in Nevada, one at Boone and three in Ames.
N of Vinton, Benton County	8	2:00 a			0	0	4	0	Lightning
Linn County	10	Afternoon			0	0	5	5	Heavy rains
									Extensive flooding in Cedar Rapids-Marion area. Amounts upward to 8.5 inches (unofficial) within a few hours. Losses near \$400,000 to property in Cedar Rapids area.
Fredericksburg, Chickasaw County	12	11:00 a			0	0	4	4	Hailstorm
									1 1/2 inch diameter.
SE of Grafton, Worth County into Mitchell County	12	4:50 p	18	880	0	0	6	6	Tornado
									15 farmsteads severely damaged. One farmstead building loss \$150,000. 5,000+ acres grain destroyed. Tornado formed near Grafton and moved NE passing 2 miles south of St. Ansgar (Mitchell County) to south of Stacyville.
Elma, Howard County into NE Chickasaw County	12	5:15 p	30	1320	0	8	6	5	Tornado
									Tornado damage to north of Lawler and Waucoma. Nearly 50 farmsteads extensively damaged.
4NE Sumner, Bremer County	12	6:30 p	6	100	0	0	5	5	Tornado
									Moved SE into Fayette County. Funnel with six fingers observed.
Fayette & Clayton Counties	12	6:50 p			0	0	5	5	Windstorm
									Arlington, Volga City and Fayette reported heavy property damage, 55 homes damaged in Fayette. One million dollars loss in Fayette County. Also hail (20%) damage and heavy rains (10%).
2S Sumner, Bremer County	12	7:00 p	3	100	0	0	5	4	Tornado
SE Delaware County	12	9:10 p	3	880	0	2	5	6	Tornado
									Over 50 farm buildings destroyed, 1000 acres agricultural crops destroyed. Occurred between Coggan and Ryan. Moved east.
N Dubuque County	12	9:15 p							Funnel
Linn and Jones Counties	12	10:00 p			0	2	5	5	Windstorm
									Wyoming and Anamosa damaged by winds.
4W Tipton, Cedar County	12	10:28 p							Funnel
Tipton, Cedar County	12	10:30 p			0	0	5	5	Windstorm
Ankeny, Polk	16	3:20 p			0	0	4	4	Hailstorm
									1 3/4 inch diameter.
S Chickasaw County	18	3:20 p							Funnels (3)
									S of New Hampton in Williamstown area.
2S Waterloo, Black Hawk County	18	3:25 p							Funnel
3S Grinnell, Poweshiek County	18	3:28 p							Funnel
Dyersville, Dubuque County	18	4:45 p			0	1	4	4	Windstorm
									Also damage at Epworth and Farley.
Morning Sun, Louisa County	18	5:45 p			0	0	4	4	Windstorm
Humeston area, Wayne County	23				0	0	4	4	Heavy rains
From NW Iowa to SC and SE Counties	22-23	Afternoon & Night			0	0	5	5	Hailstorm
Rensen, Plymouth County	26	11:50 a			0	0	4	5	Hailstorm
									Hailstones 2 inches in diameter, drifted several inches deep.
Dubuque, Dubuque County	29	5:15 p			0	0	4	4	Hailstorm
Kansas									
Barber County	1	early a.m.			0	0	4	3	Wind, rain, lightning
									Damage occurred at Kiowa as over 3 3/4 inches of rain, accompanied by damaging lightning and strong winds, were reported.
Rawlins County	3	4:45 p.	2	narrow	0	0	0	0	Tornado

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS		
Kansas (continued)										
										Tornado, moving northeast, touched down about 2 mi. west of McDonald.
Northwest, north central portions	3	aftn; eve			0	0	4	4		Hail, wind, lightning
										Hail damage occurred locally in Rawlins, Osborne, Smith and Cloud Counties. Largest stones were about 2 inches diameter east of McDonald about 5:30 p.m. Heavy rains caused flash flooding in the Harlan area and locally in Cloud County. Lightning damage occurred at Clyde.
Central portion	3-4	night of 3-4			0	0	4	0		Wind, funnel aloft
										Several buildings were destroyed and some telephone and power lines were blown down in Marion County. A funnel aloft occurred 1/2 mi. east of Holyrod at 9:00 p.m.
Central, eastern portions	3-5				0	0	4	4		Rain
										Locally heavy rains of 3 to more than 5 inches over north central and eastern Kansas July 3-4 caused flash flooding along some tributaries to the Cottonwood, Saline and Smoky Hill River Basins.
Western two-thirds	4-5	night of 4-5			0	3	5	5		Wind, hail, rain, lightning
										Heaviest hail damage was in Thomas, Gove and Pawnee Counties. Lightning damage occurred in Thomas, Rooks, Ellis, Pawnee, Ellsworth, Dickinson, and Marion Counties. Wind damage was widespread in McPherson, Marion, Butler, and Ellsworth Counties and at scattered localities over western Kansas. The three injuries were due to wind. Hail up to 1 inch diameter occurred at Salina at 1:35 a.m.
Sherman County	6	4:00-5:00 p.	15	*4	0	0	4	4		Hail, wind
										Hail up to 1 1/4 inches diameter fell over southeastern Sherman County. (Time given is MST)
Finney County	6	4:35 p.			0	0	4	0		Wind
										Strong winds damaged a church and several residences in Garden City.
Clay County	8	8:20-8:40 p.	5	*2 1/2	0	0	4	4		Hail
										Jagged hail stones, with some over 3 inches across at the widest point, fell in the area 6 to 11 miles northeast of Clay Center.
Central, northwest portions	8-9	eve of 8; night of 8-9			0	0	4	0		Lightning
										Damage occurred in Barton, Norton and Rawlins Counties.
Lyon County	9	2:15-2:25 p.	about 5	?	0	0	0	0		Tornado
										Tornado, moving northeast, was on the ground from about 2 mi. south of Americus to 9 mi. north of Emporia.
Eastern portion	9	aftn., eve			0	0	4	0		Lightning, funnel aloft
										Lightning damage occurred at Herington and at Pleasanton. A funnel aloft was reported 10 mi. west of Emporia at 2:15 p.
Northeastern one-fourth	10	a.m.			0	0	4	0		Lightning
										Damage occurred at Junction City, Wanego, and southwest of Gypsum.
Linn County	11	about 12:15 a.	?	?	0	0	4	4		Wind, hail
										Damage occurred in the Centerville and Prescott areas.
Marshall, Washington Counties	17-18	night			0	0	4	0		Lightning
										Damage occurred northwest of Hollenberg and in the Blue Rapids area.
Central portion and southern one-third	22	aftn., eve			0	0	4	5		Wind, hail, lightning
										Heavy hail damage to crops occurred in southern McPherson County and locally in Ford, Cowley, and Russell Counties. Hail up to 1 inch diameter fell in the Russell area about 4:00 p.m. and even larger stones were reported in the Winfield area in the evening. Lightning damage occurred locally in Clark, Cowley, and Crawford Counties.
Central, east central	22-23	a.m.			0	0	4	4		Rain
										General rains up to more than 5 inches fell from the Lower Smoky Hill River Basin to the Upper Marias Des Cygnes River Basin, resulting in considerable small stream flooding and crop damage. Lyon Creek flooded heavily on the 23rd, when the crest 7 mi. north of Woodhine exceeded flood stage by more than 10 feet. Minor flooding of agricultural land occurred on the Upper Marias Des Cygnes River above Melvern Reservoir and on Pottawatomie Creek during the 23rd and 24th.
Lyon County	23	1:00 a.			0	0	4	0		Lightning
										A lightning-caused fire destroyed a house at Busong.
Bourbon County	23	4:15 p.								Funnel aloft
										Funnel aloft reported 6 mi. south of Ft. Scott.
Kansas (continued)										
Finney County	27	5:15 p.	short	narrow	0	0	0	0		Tornado
										White tornado, moving SSW or south, touched down in open country about 20 miles NNE of Garden City, picking up considerable wheat straws.
Southern two-thirds	27-28	aftn of 27;nite of 27-28			0	1	5	5		Hail, wind, lightning
										Hail damage occurred in Bourbon, Pawnee, Finney, Gray, Seward, and Scott counties; largest stones were 2 1/2 inches diameter about 4:00 p.m. at Grigston. Wind damage was reported in Finney, Kingman, Harper, Lyon, Meade, Sedgwick, and Dickinson Counties. Lightning damage occurred locally in central, east central and the southeastern one-fourth of the State. Wind caused injury to a man at Wichita.
SPECIAL HAIL SUMMARY										
										Hail Loss Clearing House reports indicate hail was especially severe in the following counties and on the dates listed:
										3 - Cheyenne, Cloud, Rawlins, Smith, Thomas
										4 - Thomas
										6 - Rawlins
										27 - Finney, Gray
Kentucky										
Warren County	1	1:58 p.								Funnel cloud aloft
										In the Woodburn and Rich Bond vicinity.
Fleming County	6	2:00 a.			0	0	4	0		Lightning
										Fire apparently set by lightning destroyed the interior of a home in Elizaville.
South Central	6	a.m.			0	0	?	?		Flooding
										In a flash flood water rose to 3 inches deep in the Pleasant Valley Church, located about 6 miles from Bradfordsville in Marion County. In adjacent Casey County a heavy rain estimated at least 5 inches fell between 5 and 7 a.m. in the area of Martins Creek and Big South Fork, with 30 to 50% of the tobacco crop damaged. Most of the Jackstown area was covered by water and about a mile of roadway was under water. In the Valley nearly 80% of a 3-acre tobacco patch was destroyed by water. Crops of corn were washed away and some houses were flooded. Two bridges were damaged in the Gustie Branch and Ellisburg section. In other parts of Casey County a downpour of 3/4 inches of rain was reported, and crops were heavily damaged. In the Minor's Branch area of Boyle County water was on the road and there was some crop damage. About 4 inches of rain was the report in the Little South section.
Wolfe County	6	Morning			0	0	5	4		Flash flood
										Rain starting at 5:00 a.m. and reported unofficially as more than 9 inches between 7 a.m. and 10 a.m. E.S.T. caused Swift Camp Creek in the vicinity of Campton to rise 8 feet from its banks. For a time Campton was isolated from the rest of the county in the flood reported to have been the most damaging flash flood ever known at Campton. Estimates indicated at least \$50,000 damage to crops and \$100,000 damage to property. All low areas in and around Campton were inundated, causing considerable damage to business places, church property, funeral homes, public buildings and residences. Water was waist deep on Main Street and was reported to have risen in about 50 homes in the area. Lawns, crops and gardens were severely damaged. The water receded around 10:30 a.m. leaving widespread debris and road damage. Only moderate rain was reported to have fallen in areas 8 to 10 miles from Campton and there were no other reports of flash flooding in the area.
Nelson County	9				0	0	4	0		Lightning
										Fire set by lightning destroyed a large dairy barn and equipment.
Jefferson County	9	4:15 p.			0	0	6	0		Lightning
										A schoolhouse in St. Matthews was extensively damaged by fire set by lightning.
Fayette County	10	7:22 p.								Funnel cloud aloft
										Public reported funnel at Avon, just east of Lexington.
Madison County	10	8:15 p.								Funnel cloud aloft
										Funnel cloud sighted by Kentucky State Police.
Scott County	10	4:00 p.	10	1*	0	0	5°	C		Wind, rain
										High winds, straight-line winds associated with what a witness indicated to be a toll cloud, damaged trees and tree limbs along a path 200 feet wide and about 5 miles long. In the Newton area a mobile home was over-turned, a house and a barn were damaged. Hundreds of trees were blown down. An (estimated) 3 inches of rain in a 4-hour period (2 inches in one hour) drowned cattle 3 miles northwest of Newton. 15-20 acres of tobacco were washed out of fields in the Muddy Ford of Ford and Barkley Pike areas, and other areas were damaged by water erosion. Several miles of fences were washed down, and small buildings were moved off their foundations by flash flooding. Duration of the storm was one hour. The storm moved from southwest to the northeast. Insurance adjusters stated

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
Kentucky (continued)										
										that their offices were swamped with claims, more claims being filed than after any storm in recent years.
Jefferson County	10				0	0	4	0	Lightning	A church steeple was heavily damaged by lightning.
State	10				0	0	5	0	Lightning	Lightning-set fire destroyed a house in Bath County (8:30 p.m.). A house and contents were burned by fire set by lightning in Garrard County. Lightning was responsible for fires that destroyed at least 5 barns in widely scattered locations over the State in the following counties: Bath (2 barns) Scott; Shelby; Union.
Mercer County	11	6:00 a.m.			0	0	4	0	Lightning	Fire apparently set by lightning destroyed a home on the Cummins Ferry Road.
Boyd County	11	1:30 p.m.	1	66	0	0	3	0	Tornado	A caddy-master at a golf course 3 miles west-southwest of Ashland, Kentucky saw a funnel develop over the extreme western edge of the course, and move from west to east breaking off trees at a height of 30 feet above the ground. The diameter of the trees at this height varied from 8 to 12 inches. The path was not constant and the funnel skipped over portions of its path. Near the end of the path it lowered to very close to the ground and destroyed many trees and a tennis court fence. It continued out of the golf course into a wooded area and up a slope, passing between two houses, destroying all their ornamental shrubbery and lifting the shingled part of one roof. The tornado lifted here and seemed to dissipate. There was light rain preceding the storm and brisk wind that went calm just prior to the funnel cloud's formation. There was no thunder or lightning associated with the storm, and no roaring noise. The path of the storm was quite narrow, its widest being approximately 200 feet in the vicinity of the tennis court. There was straight line wind damage to trees along the path of the storm.
Breckinridge County	13	6:30 p.m.			0	0	7	0	Funnel cloud aloft, Wind	State Police reported a funnel in the southwestern portion of the County near Rough River. Some trees were downed and several buildings damaged.
Jefferson County	13	7:00 p.m.			0	1	4	0	Funnel cloud aloft, wind	Kentucky Police sighted a funnel cloud aloft, and reported a small tornado touchdown in Shively, Kentucky 7-3/4 miles west of the Weather Service Office at Standiford Field. However there was no positive evidence of rotation. There was one minor injury and some minor damage to buildings in the area, a number of trees and a revival tent and utility lines being downed. Throughout the Louisville metropolitan area there was considerable damage to trees, and minor structural damage to numerous buildings. Wind gusts to 84 m.p.h. from the west at the Weather Service Office, Standiford Field at 7:11 p.m. E.S.T. Rain ranged from none to an estimated 2 inches in the southern part of the county.
Casey County	13								Funnel cloud aloft	A funnel cloud was reported 20 miles east of Campbellsville.
Jefferson County	13	7:35 p.m.							Funnel clouds aloft (2)	State Police reported the sighting of two funnel clouds in Jefferson County within the half-hour preceding 7:35 p.m. E.S.T. in the vicinity of the Jefferson County-Bullitt County line moving to the northeast; in the Plantation Subdivision area in northeastern Jefferson County moving to the northeast.
Hancock County	13	6:00			1	0			Lightning	A Reynolds Station man was killed instantly when struck by lightning inside a barn.
Muhlenberg County	13	Night			0	1	4	7	Wind	Wind demolished a mobile home in the Central City area, a woman suffering a broken shoulderblade (about midnight C.S.T.). High winds in the Pennod Community demolished a garage and housed equipment; heavily damaged a tobacco barn, uprooted trees, downed utility lines.
Taylor County	13	9:00 p.m.			0	0	4	0	Lightning	Fire set by lightning destroyed the office of a cable T.V. firm.
Bracken County	14?	6:30 p.m.			0	0	7	7	Hail, wind	In Bracken County hail and wind were responsible for heavy damage to corn and tobacco. The areas suffering the most damage were Mitford, parts of Hamilton and Parina Road, and the Willow community.
Barren County	14	a.m.							Funnel cloud aloft	A funnel cloud visible just north of Glasgow for 6 or 7 minutes apparently did not touch down.

See reference notes at end of table.

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
Kentucky (continued)										
Allen County	14				0	0	4	0	Lightning	A house on the Hartsville Road was destroyed after being hit by lightning.
Logan County	14	7:15 a.m.			0	0	7	7	Hail	State Police reported a heavy thunderstorm with golfball-size hail 15 miles west of Bowling Green.
South Central	14	a.m.			0	0	7	7	Wind, lightning, rain	Heavy thunderstorms were reported in several counties, some of these being Barren, Butler, Warren, Allen, Simpson, Edmonson and Logan. In Barren County, in a 7:00-7:30 a.m. storm, gusts to 50 m.p.h. were reported; utility lines and trees were downed; there was some flooding in low places due to heavy rain; several farm buildings were set afire by lightning strikes. In Simpson County an early morning fire apparently set by lightning destroyed a house. There was damage to crops at scattered locations due to wind, rain and hail. In Logan County a roof was blown off a house.
Christian County	15?				0	0	4	0	Lightning	Lightning killed 24 head of cattle near a grove of trees before the weekend of July 17-18.
Scott County	15	4:00 p.m.			0	0	7	7	Hail	One inch diameter hail at Corinth, Kentucky
Bourbon County	15	5:15 p.m.			0	0	4	0	Lightning	A witness said that following a lightning strike a 7-bent tobacco barn appeared virtually to explode, and was completely destroyed by fire.
Northeast	15	p.m.			0	0	5	4	Hail, rain, wind	In the Fernleaf area and in other areas of Mason County, at about 6 p.m. a dozen or more farmers reported thousands of dollars damage to tobacco and corn crops, most of the damage being inflicted by the hail. Hail could be scooped up by the handful, some of it the size of a quarter. The storm moved from the northwest to the southeast, the path being about 2-3 miles wide and 10 miles long. About 100 farms in the county were attacked, most of the damage being done by hail, some to 1 inch in diameter.
Purchase Region	15	1 a.m.			0	0	5	6	Hail, wind, rain	Heavy thunderstorms were common over the greater part of the Purchase Region in western Kentucky between 1 and 2 a.m. Apparently these storms were part of the same southeastward-moving storm system that had included a tornado in adjacent southeastern Missouri. Heaviest damage was in the three counties on the Kentucky-Missouri border - Carlisle, Hickman and Fulton; most of the damage was due to hail. Total damage to crops alone in the Purchase counties hit by the storm was estimated at between \$1 and \$3 million. In Carlisle County damage to 1200 acres of crops (soy beans, corn, and tobacco) was estimated at \$500,000. In addition 4 barns and a mobile home (at Milburn) were heavily damaged or destroyed, and a portion of the gymnasium roof (damage \$100,000) at Carlisle County High School was blown off. Downed trees could be seen along most roads between Bardwell and Milburn. In Hickman County damage to 1200 acres of soy beans was estimated at less than \$200,000. At Beulah in northeast Hickman County at 1:00 a.m. CST, it was reported that high winds unroofed several homes and that several persons heard a sound similar to a freight train. In the Dewese community in Hickman County hail unlike that ever seen before was reported - "just long slivers of ice in deluge for a short while". In Fulton County damage to 20,000 acres of crops (corn and soy beans - about a 45% loss) was estimated at \$200,000. In Fulton County one witness reported hail "bigger than golf balls", and damage to storm windows and roof of a residence. There were reports of hail 2 to 3 inches in diameter, some stones being chunks with jagged cutting edges that in places pierced the rinds of water melons. In Graves County there was high wind together with lightning and scattered hail, most damage reports coming from the southern half of the county. There were reports of heavy rain 3 to 5 inches. There was damage to roofs at scattered locations. There were numerous reports of damage in the areas near Ouba, Tri-City, Winged, and Lynnville. Several roads were blocked by fallen trees near Ouba and Happy Hollow. At 1:30 a.m. CST high winds downed utility lines and trees and damaged several mobile homes. There was a severe electrical storm in the Mayfield area and power was out in the city from 1:30 to 4:00 a.m. CST. In Marshall County high winds were reported to have damaged a mobile home. In Calloway at about 1:30 a.m. CST, trees and utility lines were downed in some areas and several tents were downed at the Calloway County Fair. There was hail and wind damage to several farms.
Nelson County	16	Night			0	0	4	0	Lightning	Fire set by lightning destroyed a large dairy barn and equipment in the Chaplin area.
Elliot County	17	Night			0	0	5	6	Flooding, wind, hail	Flash flooding of about 2500 acres resulting from heavy rain late on the night of the 17th (exceeding 4 inches) caused an estimated

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
Kentucky (continued)										
										<p>\$700,000 damage to the tobacco crop and \$300,000 to the corn and hay crops. Damage of an additional \$60,000 included that to various categories of public and private property. Damaged several miles of county and rural roads (more than \$85,000 damage) washed out at least 13 bridges, and forced some families from their homes on 7 watersheds. Flooding was said to be the worst in 20 years. The streams hit by flash flooding were Little Sandy, Middle Fork, Newcombe, Laurel, Sinking, Little Fork and Briar Fork. An area of 10 to 15 miles in diameter was affected. Several of the communities affected were Sandy Hook, Isomville, Newfoundland, and Bruin. Hall and wind damage occurred in some areas. Damage to corn and garden crops was severe. High winds, reported by some to have been a tornado, damaged an area along Ky-32 late on the 17th or early on the 18th. A barn was destroyed, several mobile homes were damaged; a mobile home was crushed by a falling tree and many trees were blown down or uprooted. Hall the size of golf balls was noted. Lightning damage to electric line and telephone cables was heavy.</p>
Bath and Rowan Counties	17				0	0	?	?	Flood threat situation	<p>lifted back into the clouds. Radar indicated echoes to be moving toward the East-Southeast at 25 to 30 m.p.h.</p>
										<p>Funnel cloud aloft</p>
										<p>Two State Police Troopers sighted a funnel cloud aloft 8 to 10 miles northeast of Richmond moving toward the east-southeast.</p>
										<p>Funnel Cloud aloft</p>
										<p>Funnel cloud sighted at Harrods Creek near the Ohio River.</p>
										<p>Excessive rainfall caused flash flooding. Several new records for excessive rainfall at Louisville were established: 1.50 inches in 15 minutes; 2.68 inches in 30 minutes; 3.28 inches in 60 minutes.</p>
										<p>0 0 ? ? Flooding</p>
										<p>Excessive rainfall caused flash flooding. Several new records for excessive rainfall at Louisville were established: 1.50 inches in 15 minutes; 2.68 inches in 30 minutes; 3.28 inches in 60 minutes.</p>
										<p>0 0 4 0 Lightning</p>
										<p>Fire apparently set by lightning destroyed a large dairy barn together with all equipment near Chaplin.</p>
										<p>Funnel cloud aloft</p>
										<p>A motorist reported seeing a tornado touch down on 2 mountains and then disappear into the clouds. The funnel apparently caused no damage.</p>
										<p>0 0 4 0 Lightning</p>
										<p>A home near Lewisport burned as the result of lightning.</p>
										<p>0 0 4 ? Lightning, rain</p>
										<p>Wind downed trees and utility lines. Lightning damaged a home and a barn was destroyed by fire set by lightning. Heavy rains forced Butler's Branch to the highest level in a reported 23 to 40 years. There was considerable wind and water damage to crops (thousands of dollars).</p>
										<p>0 0 ? ? Wind, rain, lightning</p>
										<p>In Cumberland County, heavy rain brought flash flooding, water rising to over a foot deep over Highway 61 at Big Renox. Wind blew down tobacco and corn. In Clinton County about 4 miles west of Albany at 8:00 p.m. high winds damaged several homes and other buildings, and downed trees. A barn burned during a heavy electrical storm.</p>
										<p>0 0 ? ? Wind, hail</p>
										<p>A shipping storm with high winds and hail heavily damaged tobacco crops, downed utility lines and trees in the Peaks Mill area.</p>
										<p>0 0 4 0 Lightning</p>
										<p>A home was destroyed by fire apparently set by lightning.</p>
										<p>0 0 ? ? Wind, lightning hail</p>
										<p>Wind and/or hail caused damage at scattered locations in several counties: Scott County, hundreds of trees uprooted in the Stamping Ground area. At least one house was unroofed, TV antennas and utility lines were damaged; Fayette County, some hail damage to crops; Bourbon County, hail damage to tobacco crops in the Farls area along Lexington Road and the Spears Mill Road in the Clintonville areas; Woodford County, heavy hail and wind damage to tobacco crops in the Little Germany and Millville sections and an area on the Big Sink Pike.</p>
										<p>0 0 4 0 Lightning</p>
										<p>A large barn in the Nolyun section was destroyed by a fire caused by lightning.</p>
										<p>0 0 ? ? Lightning, wind rain</p>
										<p>Storms began about 5 p.m. and ended about 4:30 a.m. on the 19th, rainfall totaling 4.46 inches at Campbellsville. Campbellsville and Taylor County Volunteer Firemen answered 16 calls during the storms, most due to lightning strikes causing minor damage. However there was a large roof blaze on the 19th and at 4:55 a.m. on the 19th a barn burned, apparently set afire by lightning. Some roofs were damaged by high wind and there was damage to trees. Heavy wind damage was reported between Campbellsville and Greensburg.</p>
										<p>0 0 ? ? Lightning, rain wind, hail</p>
										<p>Lightning struck many places, and a barn near Branlett burned to the ground. Some trees were blown down, damaging houses; TV antennas were downed and barns were unroofed. There were numerous reports of crop damage due to hail and wind. Rain was heavy, 3.8 inches on the 18th.</p>
										<p>0 0 4 ? Lightning, wind</p>
										<p>Funnel was observed by the Henry County Sheriff to touch down briefly in the southern part of the County between Pleasureville and Defoe, destroying 3 barns and a silo. It almost immediately</p>
										<p>0 0 4 0 Tornado</p>
										<p>A funnel was observed by the Henry County Sheriff to touch down briefly in the southern part of the County between Pleasureville and Defoe, destroying 3 barns and a silo. It almost immediately</p>
										<p>0 0 4 ? Lightning, wind</p>

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Kentucky (continued)									
Letcher County	19	8:20a			0	0	7	0	Rain
									A barn together with farm equipment and hay in the Cedar Bluff community burned, set afire by lightning. Wind downed trees and utility lines in the Scottsburg and Cedar Bluff communities.
Greenup County	19				0	0	30	0	Flooding
									Residents of McRoberts had mud and debris deposited in their streets and yards, following the overflow of a strip-mine silt dam after a heavy rain (according to a news report).
Estill County	25	5:00 p.			0	1	0	0	Wind
									Locally heavy rain caused some flash flooding. Some damage to crops, mostly minor, was reported on Lost Creek, Little Sandy River and East Fork.
									A nine-year-old girl was painfully but not seriously hurt when hit by a falling limb during a windstorm at Irvine.
Louisiana									
Madison Parish	1	1:20p							Funnel cloud
									12 miles southeast of Delhi.
Vermilion Parish	4	10:45a							Funnel cloud
									50 miles southeast of Lake Charles, west of Pecan Island.
Orleans Parish	5	6:50p							Funnel cloud
									Lakefront Airport
Plaquemines Parish	6	11:43a							Funnel cloud
									20 miles southeast of Moisant Airport - pilot report
Lincoln Parish	6	3:30p			0	0	5	0	Rain, wind
									Strong thunderstorm struck through Ruston, ripped large limbs from oak trees, unroofed furniture store. Several automobiles and one mobile home damaged by falling limbs. Utilities knocked out for several hours.
Jefferson Parish	8	1:15p							Funnel cloud
									Near Moisant Airport - public report
Plaquemines Parish	11	2:55p							Funnel cloud
									3 miles south of Callendar Field - pilot report
St. Bernard Parish	11	3:00p							Funnel cloud
									25 miles east - southeast of Moisant Airport - pilot report
Cameron Parish	17	8:30a							Funnel cloud
									Johnsons Bayou - touched ground briefly
St. Mary Parish	17	11:09a							Funnel cloud
									20 miles west - southwest of Thibodaux
Lafourche Parish	17	12:20p							Funnel cloud
									30 miles west of Callendar Field
St. Charles Parish	17	12:30p							Funnel cloud
									15 miles west - southwest of WSO, New Orleans (numerous public reports)
Terrebonne Parish	17	12:51p							Funnel cloud
									5 miles southeast of Houma
Orleans Parish	17	2:00p			0	0	5	0	Lightning
									Lightning started fire in downtown warehouse district near Gravier and Magazine Streets. Top two floors of nautical instrument firm gutted and second floor damaged by water and smoke. Lightning also struck turbine at a city water plant shortly before 3 p.m. reducing water pressure in a large section of New Orleans for about an hour.
Assumption Parish	17	3:40p							Funnel cloud
									10 miles northeast of Morgan City
Jefferson Davis Parish	18	11:15a							Funnel cloud
									10 miles west of Lake Arthur
Calcasieu Parish	19	12:22p							Funnel cloud
									4 miles northeast of WSO, Lake Charles--touched ground briefly.
Vermilion Parish	21	12:31p							Funnel cloud
									Pilot report 14 miles south of Lafayette.
Cameron Parish	22	1:00p							Funnel cloud
Louisiana (continued)									
Evangeline Parish	22	12:30p							Funnel cloud
									6 miles southwest of Lake Arthur
									South edge of Mamou
Jefferson Davis Parish	22	1:20p							Funnel cloud
									Near Hathaway. State Police reported touched down briefly.
Sabine Parish	24	12:15p			1	0			Lightning
									Brookhaven, MS woman killed when struck by lightning while fishing on Toledo Bend Lake. Husband and another couple stunned but not injured.
Acadia Parish	27	9:45a							Funnel cloud
									Near Crowley
Calcasieu Parish	27	10:45a							Funnel cloud
									2 miles west of Sulphur. Touched down briefly.
Sabine Parish	27	6:05p			1	0			Lightning
									Zwolle man, working in yard, killed when struck by lightning.
Plaquemines Parish	29	5:00-5:30p							Waterspouts (5)
									Five separate funnels sighted from WSO, Boothville within 20 minutes, about 5 miles to north.
St. Landry Parish	30	4:35p							Funnel cloud
									Near Eunice, public report
Maine									
Woodland	1	2:45 p.m.	1	30	0	0	5	0	Tornado
									Narrow zigzag path in general easterly direction. Accompanied by heavy rain but no hail reported. Damage to paper mill, residences, a garage, and trees.
Oxford	1	3:40 p.m.			0	0	3	0	Funnel cloud, wind
									Accompanied by small hail, heavy rain and locally damaging wind, with gusts estimated to 60 mph.
Central and southern	1	p.m.			0	1	5	0	Lightning, wind
									Locally severe thundersqualls. Falling trees and branches caused utility outages. Wind also damaged roofs, chimneys, etc. Wind estimated near 60 mph in gusts in Kenduskeag and Orono around 1 PM. Numerous lightning strikes, causing utility outages and several homes and barns to burn and other damages. One injured by lightning on a Portland golf course.
Lewiston-Auburn	17	7:00 p.m.			0	0	4	0	Lightning
									Much lightning with considerable damage. One home extensively damaged.
Greenwood	17	-	0.1	8	0	0	2	0	Wind
									Reported in news accounts as a possible small tornado with path through woods, but no further information available.
Turner, Pleasant Pond	31	1:45 p.m.	3	-	0	1	5	0	Tornado
									Tornado first damaged a commercial building on Rte. 4 in Turner and moved ENE across Pleasant Pond. An 8-month old baby and her sitter were in a mobile home which exploded when hit. Both were found unharmed 200 ft. away. An occupant of another completely demolished mobile home found himself running in a field, also with no memory of how he got there and with only minor cuts and bruises. A witness described the funnel at one point as about 100 ft. wide, but as it crossed Pleasant Pond it appeared to affect a path several hundred yards wide. Debris from demolished poultry farm buildings were scattered for two miles.
Greene	31	2:25 p.m.	1/2	10	0	0	5	0	Tornado
									Damaged cottages at Allen Pond in general eastward movement. Some wind damage also in Mohmouth, farther east.
Kents Hill, Readfield, Mt. Vernon	31	3:00 p.m.	2	-	0	0	5	4	Tornado
									Some reports of twin funnels. Worst damage near Torsey Pond, which storm crossed in northeasterly direction. In Mt. Vernon heavily damaged was a barn newly built to replace one lost by fire only last November. Severe wind damage path up to about 500 yards wide in area of barn. Damage also reported in Vienna, farther to the north. Utility outages affected over 1000 homes in area.
Maryland									
Prince Georges, Frederick and Howard Counties	1	Afternoon & Evening			0	0	4	3	Wind, rain, hail
									One of the most intense summer storms in the memory of longtime residents at Bowie, Prince Georges County, toppled many trees and utility poles. Winds were estimated over 70 miles per hour. At least one house was damaged by a falling tree; a roof of another was ripped off and concession stands set up for July 4th were smashed. Lightning stunned three men working on a tower at Gambrill Park; none required medical treatment. Near Middletown, lightning

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Minnesota (continued)									
Clarissa 1-1/2 SE, Todd County	5	6:15p	1/3	30	0	0	3	0	Tornado
Central and East Central	5	Evening			0	0	3	4	Wind and hail
Lincoln, Lyon and Martin Counties	6	Afternoon			0	0	4	5	Hail and wind
Northwest and the Southern 1/2 of State	7	Morning			0	0	6	6	Strong winds, hail and rain
Hendricks 1 E, Lincoln County	9	10:30p			0	0	4	0	Lightning
Line orientated across State from Moorhead - Rochester	12	Morning & Afternoon			0	0	5	5	Wind, hail, lightning
Cottage Grove, Dakota & Washington Counties	14	6:22-7:40p	5	30	0	0	4	0	Tornado
Northwest through Southeast part of State	14	Afternoon to Evening	500	100mi.	0	1	5	6	Severe hail and lightning

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM																																												
					KILLED	INJURED	PROPERTY	CROPS																																													
Minnesota (continued)																																																					
Princeton 4-1/2 N, Mille Lacs County	18	1:00p to 1:15p	3-1/2 miles	30	0	0	3	3	Tornado																																												
State	18	Morning & Afternoon			0	0	5	5	Hail & lightning																																												
West Central	19	Afternoon			0	0	0	4	Hail																																												
Southern Minnesota	22	3:30p to 5:30p			0	0	4	5	Heavy rain & hail																																												
Ridgeway, Winona County	23	2:30a			0	0	5	0	Lightning																																												
Kittson County	24				0	0	3	4	Hail & wind																																												
South Central	27	4:30p to 6:00p			0	0	4	5	Hail & wind																																												
Mountain Lake 4-1/2 W, Cottonwood, Watonwan and Martin Counties	27	4:50 to 5:40p	25	30	0	0	4	0	Tornado																																												
New Ulm Brown & Nicollet Counties	27	5:00p	3	10 to 100	0	0	4	0	Tornado																																												
Brainerd 6 S, Crow Wing County	27	6:15p	1/2	30	0	0	3	0	Tornado																																												
<p>FUNNEL CLOUDS ALOFT DURING JULY</p> <table border="1"> <thead> <tr> <th>County</th> <th>Date</th> <th>Time</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>Crow Wing</td> <td>3</td> <td>8:47p</td> <td>Brainerd 2E</td> </tr> <tr> <td>Hubbard</td> <td>14</td> <td>12:47p</td> <td>Akeley 5S</td> </tr> <tr> <td>Beltrami</td> <td>14</td> <td>about 3:00p</td> <td>Bemidji 30N</td> </tr> <tr> <td>Washington</td> <td>14</td> <td>8:05p</td> <td>Minneapolis 32NE</td> </tr> <tr> <td>Wabasha</td> <td>18</td> <td>1:28p</td> <td>near Lake City</td> </tr> <tr> <td>Isanti</td> <td>18</td> <td>1:23p</td> <td>Cambridge 1W</td> </tr> <tr> <td>Otter Tail</td> <td>19</td> <td>3:24p</td> <td>near Ferguson Falls</td> </tr> <tr> <td>Wilkin</td> <td>19</td> <td>3:40p</td> <td>Breckenridge 5NE</td> </tr> <tr> <td>Olmsted</td> <td>22</td> <td>4:30p</td> <td>Byron 4S</td> </tr> <tr> <td>Marshall</td> <td>27</td> <td>3:55p</td> <td>Alvarado 7S</td> </tr> </tbody> </table>										County	Date	Time	Location	Crow Wing	3	8:47p	Brainerd 2E	Hubbard	14	12:47p	Akeley 5S	Beltrami	14	about 3:00p	Bemidji 30N	Washington	14	8:05p	Minneapolis 32NE	Wabasha	18	1:28p	near Lake City	Isanti	18	1:23p	Cambridge 1W	Otter Tail	19	3:24p	near Ferguson Falls	Wilkin	19	3:40p	Breckenridge 5NE	Olmsted	22	4:30p	Byron 4S	Marshall	27	3:55p	Alvarado 7S
County	Date	Time	Location																																																		
Crow Wing	3	8:47p	Brainerd 2E																																																		
Hubbard	14	12:47p	Akeley 5S																																																		
Beltrami	14	about 3:00p	Bemidji 30N																																																		
Washington	14	8:05p	Minneapolis 32NE																																																		
Wabasha	18	1:28p	near Lake City																																																		
Isanti	18	1:23p	Cambridge 1W																																																		
Otter Tail	19	3:24p	near Ferguson Falls																																																		
Wilkin	19	3:40p	Breckenridge 5NE																																																		
Olmsted	22	4:30p	Byron 4S																																																		
Marshall	27	3:55p	Alvarado 7S																																																		

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED ¹ DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Mississippi Bolivar County	2	1:59 p.							Funnel Cloud Aloft
		Pilot reported funnel cloud moving south. No report indicative of a touchdown received.							
Harrison County	3	1:50 p.			1	0	?	0	Wind, Lightning, Funnel Clouds Aloft
		Thunderstorm moved from inland to SE out over Mississippi Sound. Biloxi Police Department reported "tops out of trees" at Courthouse Road, Gulfport and DeBuys Road, Gulfport-Biloxi at 1:50 p.m. CST. Some people reported seeing funnel clouds near the Don Drive-In Theater east of DeBuys and the Edgewater Park Apartments near the Edgewater Shopping Plaza. During peak of thunderstorm, limb ripped from large oak tree on north side U.S. Highway 90, east of DeBuys Road and temporarily blocked portion of Highway. People on beach observed man, age 20, skin-boarding near water's edge south of DeBuys Road (lat. 30.4° N, long. 89.0° W); lightning struck producing wounds around his neck; man dragged victim to seawall and attempted without success to revive him. Harrison County Civil Defense Director said several small boats were tossed about in the Sound during the peak of the disturbance; public reported storm moved from vicinity beach about 1:50 p.m. out over water to SE and was said to have destroyed sail boat.							
Lafayette County	6	3:22 p.			0	1	3	0	Wind
		During thunderstorm and rainy weather, 1/2 inch hail fell at East Gate Shopping Center, Oxford at 3:22 p.m. CST and covered about one-quarter of the ground. Storm moved from S towards N and winds estimated by Civil Defense at 50-60 m.p.h. occurred about 3:22 p.m. Large glass window at south end of a clothes cleaners building was blown in and woman, age 23, sustained lacerations of her face and right foot. Civil Defense estimated wind damages at \$800 to \$1,000.							
Wayne County	12	6:51 p.							Funnel Cloud Aloft
		Pilot reported funnel cloud over Waynesboro (lat. 31.7° N, long. 88.7° W). No damage reports indicative of a touchdown received.							
George County	12	Night			0	0	4	0	Lightning
		About 4 S Lucedale, church burned to the ground; pastor estimated \$40,000 loss and said the fire apparently started during heavy thunderstorm and was believed started by lightning.							
Harrison County	13	4:00 p.- 5:30 p.			0	0	3	0	Wind
		Thunderstorms in the coastal section moved slowly southwestward and some scattered damage was reported. At about 4:00 p.m. during an electrical storm in Biloxi, a 20 by 80 ft. section of Cruso Canning Co. fuel and oil supply building was torn away, blown about 300 feet, up and over several utility lines, striking the canning facility. The company is located at the Biloxi end of the old Ocean Springs bridge and its president said the canning plant sustained about \$1,000 in damages. The Biloxi Police Department reported half inch hail occurred at 4:20 p.m. in the Back Bay area. Radio station WROA, Gulfport reported wind damaged tree and it damaged house around 5:30 p.m. in the Pineville community about 2 NW Long Beach (lat. 30.1° N, long. 89.2° W).							
Oktibbeha County	16	About 4:30 p.			1	0	0	0	Lightning
		When a thunderstorm struck about 4:30 p.m., 17 year old boy pulled his Honda under large pine tree just S of Village Oaks Apartments on Highway 25, southern outskirts Starkville. A lightning bolt struck the tree and the boy died instantly.							
Holmes County	16	About 5:40 p.			0	0	3	0	Wind
		Damaging winds occurred at Horseshoe Lake, S 1/2 W Tchula (lat. 33.1° N, long. 90.3° W). A 50 by 50 foot hangar demolished and one aircraft heavily damaged when blown 50 to 75 yards; owner said damage would run to several thousand dollars. About a mile to NE of air strip, barn had half its roof torn off, cotton trailers overturned and nearby trees knocked down. Several other trees were knocked down at a place just off Highway 49.							
Holmes County	16	6:24 p.			0	0	3	2	Funnel Cloud Aloft, Wind
		Thunderstorm moved from W towards E. There was wind damage in an area about 2 miles long and 1 mile wide in the west part of Lexington. The highest winds were reported to have occurred between 6:24 p.m. to 6:26 p.m. Newspaper noted, "The wind pushed over a number of large trees, several of which fell on houses, . . . rolled up part of the tin roof on the compress warehouses on Highway 17 South, turned over a new mobile home at Fleetwood (trailer manufacturers) and tore the roof off a barn just north of the Odd Fellows Cemetery." Some people reported sighting one funnel whose path was said by some to be above the ground. Man estimated \$300 wind damages to field crops, \$2,000 damages to property and lightning caused \$2,000 damages.							
Attala County	19	8:25 p.							Funnel Cloud Aloft
		Man sighted funnel cloud over Kosciusko moving south; no rain, no lightning. No damage reports indicative of a touchdown received.							
Lamar County	20	11:40 a.							Hook Echo
		Jackson radar indicated hook echo 4 E Lumberton moving ESE at 30 m.p.h. No damage reports received.							
Mississippi (continued)									
Pike County	20	About 2:25 p.							Funnel Cloud Aloft
		During thunderstorm Highway Patrol reported funnel cloud at Magnolia (lat. 31.1° N, long. 90.5° W) moving eastward. No damage reports indicative of a touchdown received.							
Forrest County	21				0	13	?	0	Lightning
		Lightning struck radio antenna in a field tent of Alabama National Guard at Camp Shelby; 13 guardsmen were injured.							
Mississippi Sound	25	About 9:30 a.							Waterspout
		Waterspout sighted SE of Pass Christian (lat. 30.2° N, long. 89.1° W).							
Walthall County	26	Afternoon			0	0	4	0	Lightning
		Tylertown newspaper headlined, "Electrical storm destroys two houses", one at Improve and another at New Zion community 7 SE of Tylertown; both completely destroyed. An estimate covering house at New Zion indicated damages over \$10,000 for house and contents.							
Jones County	27	p.m.			0	0	5	0	Heavy Rain
		From 3:05 p.m. to 4:20 p.m., 2.22 inches rain measured at Laurel, still raining at 5:35 p.m. with 3.83 inches as 24-hour amount measured 5:00 a.m. of 28th. Flash flooding and 75 to 80 families evacuated from east side of Laurel, several small bridges washed out. County Civil Defense Director estimated damages at almost \$500,000.							
Jackson County	30	3:00 p.							Funnel Cloud Aloft
		Funnel cloud moving towards north, sighted 1 N Moss Point (lat. 30.4° N, long. 88.5° W). No damage reports indicative of touchdown received.							
Lauderdale County	30	Night			1	0	6	0	Heavy Rain
		Thunderstorm brought rain with unofficial totals up to 7 inches in 3 hours to an area of about 3 miles in diameter in northern Meridian. One man, age 33, fell into water and drowned. Red Cross estimated at least 500 homes damaged; many automobiles flooded and streets and bridges damaged. Estimated damages \$1.2 million. Along the routes of three creeks in Meridian, there was major flooding and hundreds evacuated.							
Missouri									
Florissant, St. Louis County	4	6:43 pm					1		Lightning
		A young man was killed when he was struck by lightning while playing right field in a softball game in St. Ferdinand Park.							
Doniphan, Ripley County	5	4:30 pm					1		Lightning
		An eleven-year-old girl was electrocuted when lightning struck her while she was playing on a metal swing.							
Mexico, Andrain County	8	evening					2	3	Wind and Hail
		1/2 to 3/4 inch hail driven by winds gusting to 50 miles-per-hour beat down and riddled a large cornfield, broke tree limbs, and upset a fireworks stand east of Mexico.							
Brashear, Adair County	9	6:30 am					1		Lightning
		A middle-aged woman was killed when lightning struck the two-wheel farm trailer in which she was riding, as she and her husband were crossing an open field on their farm 2-1/3 miles northeast of Brashear. The husband, riding on the tractor, was not injured.							
Hopkins, Nodaway County	9	unknown					4		Lightning
		A large machine shed was struck by lightning on a farm near Hopkins. The shed and its contents which included 3 tractors and a 6-day-old pickup truck were totally destroyed by the fire.							
Wright City, Warren County	10	10:43 am	1/4	75			0	1	C Tornado
		A small tornado moving in a southeasterly direction touched down briefly on a farm near Wright City. Two large cattle barns and the back porch of the farmhouse were demolished.							
Davies and Grundy Counties	11	early morning					0	1	C Hail and Wind
		A thunderstorm accompanied by large hail and strong winds heavily damaged 700 to 800 acres of corn and soybeans in northeast Davies County, destroyed a garden, damaged the roofs of a house and farm buildings on a farm 4 miles west of Edinburg in western Grundy County.							
Howard County	14	early morning						2	Hail
		Hail the size of hen eggs dented two cars and a pickup truck 13 miles northeast of Fayette in northeastern Howard County.							
Desloge, St. Francois County	14	5:50 pm			4	23	6		Wind and Hail

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE	CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS			
Missouri (continued)											
										4	Hail
Huntsville, Jackson-ville, Randolph County	20	1:00 am									Hail ranging in size from golf ball to larger than baseball size leveled corn and soybean fields in a narrow strip from 2 miles north of Huntsville to near Jacksonville.
Joplin, Jasper County	23	3:26 pm									Funnel Cloud
											Public reported a funnel cloud moving northeast, 2 miles east of Joplin.
Richmond, Ray County	23	6:12 pm									Tornado
											Police reported that a tornado touched down briefly just south of Richmond. No damage reported.
Green Ridge, Pettis County	28	12:02 am						4			Lightning
											Lightning caused a fire that completely destroyed a farm house near Green Ridge, 12 miles southwest of Sedalia.
Joplin, Jasper County	29	2:00 pm									Funnel Cloud
											A funnel cloud was sighted west of Joplin during a thunderstorm.
Montana											
Sheridan County	2	5:55pm	10	250	0	0	0	4			Tornado, hail
											A large tornado moved northeastward through the Medicine Lake National Wildlife Refuge for about 20 minutes. The tornado remained over the lake for the most part touching land only briefly. Hail up to 3 inches in diameter damaged grain crops on neighboring private land.
Whitefish, Flethead County	6	11:45am	?	?	0	0	0	0			Hail
											Public reported 3/4 inch hail, no damage.
Sheridan County	6	Afternoon	?	?	0	0	?	?			Hail, funnel cloud
											Hail damaged crops in the Antelope-Coealridge area. No estimates of damage or hail size available. Unconfirmed funnel cloud reported by the public at 2:30 p.m.
Daniels County	9	6-6:30pm	4	?	0	0	0	4			Hail
											Hail up to 1-1/4 inches caused about \$13,000 damage to grain crops around Whitehall Port of Entry on the Canadian Border.
McCone, Dawson, Wibaux Counties	10	4-5pm	?	?	0	1	5	6			Hail, wind
											One inch hail and winds estimated at 75 m.p.h. caused extensive property and crop damage from Circle to north of Wibaux with the Glendive area being the hardest hit. A number of mobile homes and farm buildings were destroyed or damaged. In Glendive an outdoor theatre screen was destroyed, homes damaged, an elementary school roof suffered extensive damage, and part of the library building roof at Dawson College was blown off with the following rain destroying 775 books and damaging another 226 volumes. Seven miles of power lines were destroyed in Wibaux County.
Near Jordan, Garfield County	21	Afternoon			0	0	4	0			Wind
											Wind accompanying a thunderstorm damaged 2 homes, destroyed a truck camper, and moved a tandem wheel truck trailer 100 feet.
Toole, Liberty, Hill, Blaine Counties	21	Afternoon			0	0	0	?			Hail
											Hail up to one inch caused damage to grain crops in scattered areas. No estimates of damage available.
Nebraska											
Kimball County-Banner County	1	7:12p	Short Narrow		0	0	0	0			Tornadoes (2)
											Tornadoes sighted by pilot and from the ground in the northeastern corner of Kimball County and southeastern corner of Banner County. Open country. No damage.
Banner County	1	Evening	10	4*	0	0	4	5			Hail
											Centered in Harrisburg vicinity and northern portion of Banner County. Most of stones were 1/4" or less in diameter, but were driven by high winds and accompanied by heavy rain that did up to 100% damage to wheat that was ready for harvest.
Cheyenne County	3	4:23p	-	-	0	0	0	0			Funnel cloud
											Sighted southeast of Sidney.
Brown County	3	5p-6:30p	-	-	0	0	5	0			Tornadoes(2)
											Numerous funnel clouds were sighted in northern Brown County during an hour and a half period. A pilot reported 12 funnel clouds in sight at one time. Two tornadoes touched down 6 to 10 miles west of Ainsworth doing minor damage to farmsteads

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Nebraska (continued)									
									near Johnstown and power line damage near Ainsworth. One of the tornadoes was described as rope type, the other as the conventional funnel shape.
Morrill County	3	8:46p	Short	Narrow	0	0	0	0	Tornado
									Sighted by public east of Scottsbluff.
Polk - Platte Counties	4	1:00a-2:15a	35	4*	0	0	0	4	Hail
									Several strips of hail 2 to 4 miles wide and 5-10 miles long. Stones were mostly 1/4" to 3/8" diameter.
Dawes County	4	3p-4p	30	4*	0	0	4	5	Damaging winds, hail
									Winds that measured up to 92 miles per hour at the Chadron Airport destroyed a hangar and overturned house trailers. Storm center moved south-eastward just south of Chadron. Hail fell in the Crawford, Whitney, Chadron and Bordeaux areas with considerable damage to the wheat.
Banner County	4	3:30p-4p	20	2*	0	0	0	4	Hail
									From Harriburg area southeastward to Kimball County line.
Stanton-Wayne-Cuming Counties	4	4:00-5:00p	25	10*	0	0	4	4	Hail
									Several strips of hail. The largest strip and heaviest hail located from west to north of Pilger where stones 1 1/2" to 2" diameter covered the ground.
Chase County	4	6:30p-7:30p	25	2*	0	0	4	5	Hail
									Severe thunderstorm accompanied by hail and strong winds moved from south of Lamar northeastward across the county. Stones that were mostly 1" in diameter but ranged up to 2" completely covered the ground in some areas.
Cherry County	4	7:30p	Spot	Spot	0	0	0	0	Tornado
									Public reports tornado touched down briefly in open area 11 miles south of Wood Lake.
Red Willow County	6	8p-11p	10	3*	0	0	0	4	Hail
									Storm moved from southwest to northeast about six miles southeast of McCook. Stones mostly about 1/2" in diameter but a few ranged up to 2".
Scottsbluff-Banner-Morrill Counties	8	Evening	-	-	0	0	0	5	Hail
									Widespread areas of small sized hail driven by high winds did considerable damage to crops in the three county area.
Scotts Bluff County	8	6:45p-7:30p	25	Narrow	0	0	4	0	Funnel clouds, Tornado
									Numerous funnel clouds reported in the Scottsbluff area with a tornado touching down intermittently doing little damage as a storm cell moved from 20 miles west of Scottsbluff to Minatere.
Deuel County	9	5p-6p	10	3*	0	0	0	4	Hail
									South of Chappell. Stones 1/2" to 1" diameter.
Chase County	9	6:30p	-	-	0	0	4	0	Damaging winds
									House trailers and grain bins destroyed in the Lamar vicinity.
Rock County	17	Night	-	-	0	1	0	0	Lightning
									Girl suffered severe injuries when lightning struck telephone line.
Holt County	17	5:30p-7p	35	3*	0	0	0	5	Hail
									A strip from Atkinson eastward to county line. Stones ranged from 1/2" to an inch diameter.
Southwest of Grand Island	17	9:30p	-	-	0	0	0	0	Funnel clouds
									Sighted 58 miles southwest of Grand Island.
Boone to Polk County	17	9:30p-Midnight	35	1 to 6*	0	0	0	0	Hail, damaging winds
									Severe thunderstorm moved along Albion-St. Edward-Genoa-Shelby line. Extreme hail damage in St. Edward and Genoa area in strip one to six miles wide and 15 miles long. Moderate hail damage elsewhere in Boone and Nance Counties and light in Polk County where damage was mostly from winds breaking corn, trees, antennae, grain bins, etc. Stones mostly 1/2" to 1" diameter, but some 2" stones damaged buildings in the St. Edward-Genoa area.
Knox County	22	5p	-	-	0	0	0	0	Funnel cloud
									Sighted near Creighton.
Wayne and Cuming Counties	27	1:30p-4p	15	3*	0	0	3	5	Hail
									Severe hailstorm moved from Windie to Wisner with width of path varying from one to five miles. Stones 1/2" diameter covered the ground to 3" depth at some sites. Stone size ranged up to 1 1/2 inches.
Thurston County	27	2:30p-3:30p	4	1*	0	0	0	5	Hail
									One-half inch stones covered ground in and around Winnebago.
Nebraska (continued)									
Near Grand Island	27	4:30p-6p	-	-	0	0	0	0	Funnel clouds, tornado
									Several funnel clouds were sighted in south central Nebraska near the vicinity of Central City, Hastings, and Kearney. One reportedly touched ground 4 miles north of Kearney at 4:50p but did no damage.
Hall and Merrick Counties	27	5:15p-6:30p	15	2*	0	0	0	4	Hail
									Hail mostly 1/4" to 1/2" diameter but ranged up to 2" diameter northeast of Grand Island. Storm moved from St. Libory area to south of Chapman.
Nevada									
Hidden Valley, Washoe County	16	4:30 p.m.			0	0	?	3	Flood
									Water from heavy thunderstorms brought extensive damage in the residential district of this valley. The heavy downpour drove mud into the middle of the district from loose dirt near the construction work at the base of the hills. A golf course nearby was partially damaged by the encroaching mud. Extensive damage was done to shrubbery and lawns.
Lovelock, Pershing County	18	7-10 p.m.			0	0	?	?	Flood
									Thunderstorms brought mud and water on Interstate 80 between Lovelock and Winnemucca and forced rerouting of traffic. No serious accidents were reported, but cleanup crews worked through the night to clear the highway.
Sun Valley, Washoe County	20	3-6 p.m.			0	0	?	?	Thunderstorms
									Strong wind, hail and heavy rain accompanied thunderstorms that hit residents of Sun Valley. Half inch hail, as much as 18 inches in depth, collected in some spots. In spite of the street being filled with 2 feet of water, no major structural damage was reported. One trailer owner had a metal awning twisted by the hailstorm.
Elko County	21	1:04 p.m.			0	0	0	0	Funnel Cloud
									Meteorologist at the Elko Weather Service Office reported a funnel cloud, 10 to 15 miles east of Elko City. The cloud was spotted protruding from the 4500 foot base of a thunderstorm cloud and lasted for approximately two minutes. The cloud was verified as a weak hook echo on the Salt Lake City radar.
Clark County	21	p.m.			0	0	0	0	Mudslide
									Thunderstorms brought rain to the Mt. Charleston Park and induced mudslides which covered portions of State Route 89 with up to four feet of mud over about 200 feet of road. No injury was reported. The highway was closed for more than five hours.
Reno, Washoe County	31	4:30-7 p.m.			0	0	?	?	Thunderstorms
									An intense thunderstorm in Reno brought gusty winds, one-half inch hailstones and heavy rains and lightning induced fires. Winds with 43 mph gusts damaged some trees; lightning hit power lines and a chimney of a house. It also brought power outages at numerous locations. Flood with, at times, 18 inches of water hovered over intersections. About a dozen brushfires were put out by firemen. No serious injury was reported.
New Hampshire									
State	1	p.m.			0	0	4	0	Lightning, wind rain
									Locally severe thundersqualls with damaging winds. Some homes damaged in Chocoma. Falling trees and branches caused utility outages. Scattered lightning damage. Washing and flooding rains heaviest in northern portion. Some hail but no damage noted.
Plaistow	17	7:00 p.m.			0	0	5	0	Lightning
									Lightning set fire to a large factory, with near total loss.
Littleton	24	4:40 p.m.			0	0	4	0	Lightning
									Fire by lightning destroyed a large barn.
State	29	evening			0	0	4	0	Rain
									Thunderstorm brought locally flooding and washing rain to a number of localities, with total rainfall varying to 3 inches and more. Some large road washouts occurred in Richmond. Some stores suffered water damage in Plymouth.
New Jersey									
Morris County	19	1:25 p.m.	1	800	0	0	5	0	Tornado
									A funnel cloud moving from WSW to ENE passed over Lake Valhalla in Mantville Township. Some large trees were twisted off and many others were blown over. Highways were blocked and several roofs were damaged, a few severely.
Bergen County	19	2 p.m.	2	400	0	0	5	0	Tornado
									A funnel cloud touched down at the SW edge of Rutherford and moved ENE through E. Rutherford. Several trees were uprooted, a warehouse roof was ripped off, a garage was demolished, a trailer truck was overturned and considerable other damage was reported.

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM	PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM		
					KILLED	INJURED	PROPERTY	CROPS							KILLED	INJURED	PROPERTY	CROPS			
New Jersey (continued)										New York (continued)											
Burlington County	26	3:10 p.m.			1	15	0	0	Lightning											Finger Lakes to the middle and lower Hudson Valley. Lightning bolt killed 16 cows near Addison, Steuben County. Winds demolished two small barns at Ovid, Seneca County. Power failures affected TV cable system in Corning, navigation lights at Chemung County Airport and thousands of customers from Steuben to Seneca and southwestern Onondaga Counties. Two boys killed by lightning bolt at Cheota; man killed by bolt on golf course near White Plains. Man working near cranes stunned by lightning at Cohoes, Albany County. Gusty wind blew men off moving truck causing fatal injuries, at Cranton-on-Hudson, Westchester County; man injured when struck by windblown tree limb at Ellenville, Ulster County. Dairy barn and contents of machinery and 5000 bales of hay destroyed by lightning fire near Newburgh; summer cottage heavily damaged by fire in southern Dutchess County. Power failures, downed trees and limbs prevailed widely in Hudson River Valley from greater New York City to the Albany district. Also extensive breakage of trees, etc reported in Walton, Delaware County.	
Statewide	29-31				0	0	4	0	Heavy rains, electrical												
New Mexico																					
Taos County	18	12:05 p.			4	2	0	0	Lightning	Candor, Tioga County	13	09:30 a.m.				1			Wind		
									Four cyclists killed, one of burns and three by concussion, and two injured, burns and shock, when lightning struck tree in grove in which they alighted and took shelter. Others, who remained in dune buggies, escaped injury. Incident occurred near entrance to Black Copper Canyon in Carson National Forest, about 12 miles southeast of Red River.											Man driving tractor on farm was seriously injured when struck by large windblown tree limb.	
McKinley County	21	11:30 p.			0	1	0	0	Lightning	Niagara, Orleans and Monroe Counties	13	after-noon				4	4		Rain, lightning, wind, hail		
									Worker struck by lightning and fell from oil rig about 56 miles southeast of Harrington, San Juan County.										Violent thunderstorms caused variable damage in narrow band from Lewiston to Rochester. Heavy rains of 1.4 inches in half hour at Lockport and storm totals up to 2.5 inches in affected counties caused extensive flooding in Lewiston, Lockport, Medina, Albion and Rochester. Streets and underpasses flooded in Rochester by heaviest 2 hour rain (2.25 inches) in 21 years. Lightning-caused fires resulted in light damage to restaurant and garage in Lockport. Winds broke limbs, trees and power lines in several communities. Some fields of maturing oats, wheat and hay flattened by wind. Hail of 3/4-inch diameter fell in scattered sections of three counties with locally heavy damage to grape vineyard near Lockport. As thunderstorm moved eastward into Central New York by evening scattered power failures and damage to trees occurred in Cayuga, Chenango, Broome and Tioga Counties.		
Datil	22	3:30 p.			0	1	0	0	Wind	Saratoga County	15	after-noon					4		Hail		
									Wind gust blew trailer off crane onto worker beneath.										Hail of 3/4-inch diameter struck local area of northeastern Saratoga County, near Schuylerville. Extensive damage to 40 acres of corn, home gardens, etc. Herd of dairy cows caught in hail suffered welts and bruises.		
Estancia	26	4:40 p.			0	0	3	0	Hail	Chenango, Oneida and Schoharie Counties	17	early p.m.					4		Wind		
									Hail to 1-1/2 inches in diameter damaged roofs and car tops.										Strong gusting winds associated with thunderstorm activity caused localized damage in each of the three counties. Two trailer homes sustained extensive damage at Oxford, Chenango County, when large tree was toppled onto them. Much damage to trees elsewhere in this community. Metal storage shed wrecked and power out to several thousand customers in Utica area. Many trees, limbs and utility-lines broken in the downtown and residential sections of Middleburgh, Schoharie County.		
Santa Fe	26	Afternoon			0	2	1	0	Lightning, hail	Syracuse (metropolitan area)	21	midday				5	4		Rain, hail		
									Two diners cut by flying glass in restaurant when hail and nearby lightning bolt strike shattered window.										Cloudburst rains hit city of Syracuse and suburbs about noon with 1.75 inches falling in 40 minutes. Widespread flooding of streets, parks, low lying areas, and basements resulted. Expressway through city was closed as water up to eight feet deep accumulated in underpasses, stopping traffic. Business establishments downtown had basements and first floors flooded and one city hospital sustained water damage in basement. Light aircraft in approach to city airport crashed in wooded area near Minoa; 3 occupants only minor injured but plane was total loss. Hail up to one-inch size ravaged home gardens and some crops in eastern suburbs of city. Winds downed a few trees and several minor fires resulted from lightning strikes.		
Golfax County	27	12:15 p.-12:45 p.	Short	Few	0	0	0	0	Tornado, funnels aloft, hail	Madison and Oneida Counties	24	early p.m.					4	5		Hail, wind	
									Tornado 5 miles northwest of Capulin and 2 funnels aloft over and east of Capulin National Monument, 21 miles east-southeast of Raton. Tornado moved west to east, touched down for less than 30 seconds, and kicked up a large ball of dirt. Sprinkling of hail to 1-inch in diameter at Capulin National Monument. Funnels aloft were long and slender, undulating and roaring.												Hail of golfball size caused severe damage to muckland crops in a strip from Chittenango, Madison County to the Verona area of western Oneida County. Crops destroyed included more than 500 acres of onions and vegetables and smaller acreages of corn, oats and barley. Some wind damage to trees, limbs and power lines also occurred in both counties as far east as the Rome area.
Grant County	27	2:30 p.			0	0	2	0	Hail	Onondaga and Madison Counties	26	evening					4			Rain, wind	
									Hail to 1-inch in diameter in Silver City area. Hail to 2-inches in diameter at Pinos Altos damaged roofs and trees.										Heavy rains and damaging winds struck greater Syracuse and areas of counties to the east for the second time in two days. NWS station at Syracuse measured 1.4 inches of rain in 40 minutes. Flooding severe in towns of Camillus and Liverpool, although greater Syracuse area sustained less flooding than in storm of July 24. Winds caused locally heavy damage in village of West Eaton, southern Madison County. Carport on trailer home demolished and another trailer home was pushed off foundation, while many large trees were toppled or sheared off and power lines downed.		
Santa Fe	28	4:31 p.			0	0	0	0	Hail	Orange County (northeast portion)	29	4:50 p.m.	8	50-100	0	0	5		Tornado		
									Hail to 1-inch in diameter.												
Las Vegas	29	4:20 p.			0	0	0	0	Hail												
									Hail to 1-inch in diameter.												
Millie	29	6:30 p.			0	0	0	?	Hail												
									Four inches of hail with diameter up to 1-3/4 inches damaged fruit and crops.												
Carlsbad	29	8:33 p.-early a.			0	0	4	0	Heavy rain												
									Commercial building roof collapsed on 30th from accumulated rain of about 2 inches. Products and equipment in building damaged.												
Lea County	30	1:45 a.			0	0	?	0	Lightning												
									Lightning fired tank battery 10 miles south of Lovington and a house in Lovington.												
Rienhardt Ranch	30	3:30 p.			0	0	0	0	Hail												
									Hail to 1-inch in diameter at ranch 28 miles southwest of Socorro.												
Wolf Canyon	30	4:00 p.			0	0	0	0	Hail												
									Hail to 1-1/2 inches in diameter, 12 miles east-southeast of Cuba.												
Grand Quivira National Monument	30	6:00 p.			0	0	0	0	Hail												
									Hail to 2-inches in diameter.												
New York																					
South central, east central and south-east	1	after-noon			4	2	5		Electrical, wind												
									Afternoon thunderstorms were accompanied by widespread destruction by lightning and winds from the central southern tier and eastern												

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED ¹ DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
New York (continued)										
										Tornado moved east northeasterly. Path began near village of Salisbury Mills, continued to Beaver Dan Lake, struck village of Vails Gate and ended near village of New Windsor, all in north-eastern Orange County. Inn at Salisbury Mills had roof removed and inside contents of heavy pool table and jukebox overturned and driven against a wall. Auto near Inn was picked up and dropped in nearby field. Near Vails Gate home and garage were demolished by winds and three summer cottages smashed by falling trees. Printing shop also had roof ripped off and part of walls blown out. Some 50 homes and buildings sustained varying degrees of damage. One car smashed by overturned tree. Funnel was witnessed by several people. Total damage estimated in excess of \$100,000. Heavy rains of 2.5 inches measured in Newburgh, just north of twister path.
Mahopac, Putnam County	29	5:30 p.m.	4	30	0	0	5		Tornado	Tornado moved northeasterly through village of Mahopac and to a point east of Lake Mahopac. Large two-story house torn from foundation and demolished in Mahopac. Three additional homes along path had roofs ripped off and furniture warehouse had roof collapse into interior, damaging contents. Lumber company had building heavily damaged and lumber blown away. At boat marina on Lake Mahopac a boat trailer was blown through large window, numerous boats scooped up by winds and scattered around lake shore. Numerous trees were twisted off above ground or toppled and streets and highways littered with debris. Funnel cloud was observed.
New York City (metropolitan area)	29-30	p.m. to p.m.							Rain	Heavy rainfall of 3.5 to 3.8 inches centered over New York City and its Westchester County suburbs with heaviest downpours occurring during morning rush hours. Commuter and subway trains were halted or greatly delayed. Virtually every major expressway and highway artery into the city was flooded, with massive traffic tie-ups. Extensive flooding and some property damage reported in Westchester County suburbs of Tonkers, Mahanoch, Mt. Vernon and Larchmont as well as on Staten Island. Heavy rains forced sewage plants in Westchester County to discharge untreated wastes into Long Island, compelling authorities to close several pleasure beaches in the area. Heavy rains also extended northward to mid Hudson Valley with 1.00 inch recorded in 30 minutes at Kingston, evening of 29th.
Swan Lake, Sullivan County	31	7:30 a.m.					4		Wind	Strong winds during thundersqualls demolished large barn, broke or toppled several large trees and downed powerlines.
North Carolina										
Caldwell, Catawba, Gaston, Iredell, Johnston, Lee, Pitt, Scotland, Transylvania and Wake Counties	1	Aftn & evening			0	0	5	3	Electrical, wind	Lightning set fire to homes and industrial plants; killed four cattle. Wind destroyed a mobile home and furnishings. Wind blew down trees and damaged a few fields of corn. Trees broke power and telephone lines.
Cleveland, Craven and Onslow Counties	2	12:30-8pm			1	0	4	0	Electrical	Boy under tree struck and killed by lightning. Lightning-set fires destroyed three mobile homes and damaged a frame dwelling.
New Hanover County	2	4:15pm					0	0	Waterspout	Observed offshore from Fort Fisher.
Cumberland, Harnett, Johnston Counties	6	6 pm					4	3	Electrical, rain, wind, hail	Wind blew down utility poles; damaged homes, outbuildings and a trailer; blew down tobacco in field. Lightning struck and damaged church steeple; set fire to a truck garage; damaged transformers, caused power outages. Saturation of underground cables interrupted telephone service.
Alamance, Buncombe, Burke, Caldwell, Craven, Lenoir, Pitt, Sampson and Wayne Counties	7	2-5pm			0	1	4	3	Electrical, wind, rain, hail	Airman struck by lightning while walking on flight line at Seymour Johnson Air Base. Power failures over a wide area; transformers destroyed; trees blown down or struck by lightning fell on power lines, houses and autos; telephones out. Fields, streets and basements flooded. Light crop damage from rain and hail.
Hoke County	8	2-3pm					4	4	Electrical, wind, hail	Strong winds destroyed mobile home. Lightning struck school, damaging chimney and roof. Tobacco crop damaged by wind and hail.
Piedmont and interior Coastal Plain	9-10	8 pm - 1:30am			0	1	5	5	Electrical, wind, hail, rain	A line of thunderstorms entered northern and western Piedmont and moved southeastward, accompanied by strong winds, heavy rain and some hail. Lightning burned a funeral home, a residence, and four outbuildings; damaged three other homes. Storm reached Greene County in early morning, doing extensive damage to tobacco crop due to hail and high winds; some roofs also damaged that area. One man injured slightly by lightning.
Burke, Vance and Yadkin Counties	10	4:15pm			0	1	4	0	Electrical, wind, hail	Man injured when mobile home blown over and destroyed by strong winds. Lightning knocked out four transformers, set fire and destroyed a home. Trees and limbs blown down blocked highways.

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED ¹ DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
North Carolina (continued)										
Piedmont; a few areas eastern Mountains and interior Coastal Plain	11-12	2pm-1am			0	5	6	5	Electrical, hail, wind	Five firemen injured fighting lightning-set fires. Thunderstorms caused widespread damage during afternoon and night. Lightning burned historic mill and residence, other homes and farm buildings; damaged additional homes and outbuildings; caused power and telephone outages in many areas. Many trees struck by lightning or blown down by wind; trees and limbs across roadways caused auto accidents. Wind damaged four mobile homes, several tobacco barns and other farm buildings. Hail damaged tobacco and corn crops several areas.
Carteret County	11	5:00am					3	0	Waterspout	Atarkers Island. Moved near shore, causing light damage to boats, trailers and campers.
Moore County	11	5:00pm					0	4	Hail	Light damage to about 65 acres of tobacco.
Alamance, Currituck, Cleveland, Durham, Granville, Halifax, Mecklenburg Counties	14	3-8pm					4	4	Electrical, wind, hail, rain	Thunderstorms in widely scattered areas caused light to moderate property damage. Fuses blown, transformers struck, pump at water plant burned out. Large trees broken off or uprooted, falling on power lines and houses. Lightning burned home and tobacco barn. Wind damaged home, barn and smaller outbuildings. Gusts to 52mph reported at Charlotte. Hail damaged tobacco and other crops in several small areas.
Rowan County	15	Afternoon					4	0	Electrical, rain	Isolated heavy thunderstorm caused power outages and flash flooding.
Bertie, Halifax Counties	16	3 pm					3	5	Hail, wind, rain	Marble size hail damaged tobacco & cotton crops. Wind blew down tree doing slight damage to dwelling and auto. Fields flooded.
Franklin, Johnston Counties	18	Afternoon			0	1	4	0	Wind, electrical	Wind blew TV antenna across power line; man burned by live wire. Lightning burned tobacco barn.
Edgecombe, Hertford, Johnston, Martin, New Hanover, Scotland, and Wake Counties	19	12:30-3pm					4	4	Electrical, wind, hail	Scattered damage to homes and furnishings as lightning caused small fires; minor damage to church bell tower. Wind blew trees across roadways; damaged roof and ceiling of school; gusts to 45mph reported at Raleigh. Corn and tobacco crops damaged by hail.
Brunswick, Craven and Onslow Counties	20	3-4pm					4	0	Electrical, wind	Lightning struck trees; set fire to two houses. Wind destroyed a mobile home, damaged others and an auto.
Wilson County	21	Morning					0	5	Hail, wind	About 100 acres of crops damaged in varying amounts by wind and hail during early morning hours. Some farm buildings damaged; roofs blown off, trees uprooted.
Guilford County	24	Evening			1	1	3	0	Electrical	Lightning caused fire in an abandoned structure frequented by vagrants. One man died in the fire, another critically burned.
Dare, Duplin Counties	25	3 pm					4	0	Electrical	Lightning struck packhouse; house burned, with a supply of cured tobacco, farm equipment and insecticides. Transformers and water pump burned out.
New Hanover County	27	Night					4	0	Wind	Wind in severe thunderstorm ripped porch from home, blew down a section of cement wall and bleachers at a school.
Piedmont	28-30	Late afternoon					4	0	Electrical, wind, rain	Three consecutive days brought similar pattern of scattered thunderstorms, each causing several minor instances of structural damage by wind and lightning, and flooding of streets, parks and basements.
North Dakota										
Richland County	5	Evening			0	0	0	4	Hail	Hailstorm caused hail crop damage in Richland County on a line from Lidgerwood to Fairmount also near Cogswell in Sargent County. "Baseball" size hail was reported.
Ray 7 ESE, Williams County	6	5:00p	1/8	50	0	0	0	0	Tornado	Small tornado moving east southeast touched down in an open field. Several funnels aloft were also observed.
Ross 1 1/2 W, Mountrail County	6	5:15p	1/4	100	0	0	3	0	Tornado	Tornado moving east touched down on a farmstead damaging several out buildings. Funnel aloft were also seen.

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
North Dakota (continued)									
Sheyenne 3 SW, Eddy County	6	8:00p	1/8	30	0	0	0	0	Tornado
									Very small tornado moving north. One was observed to touch down in an open field in Section 30 of Gates Township causing no damage, 3 other funnels clouds aloft were also observed.
Brocket 5 SW, Ramsey County	6	11:25p	3	50	0	0	5	0	Tornado
									Tornado touched down 5 miles southwest of Brocket moved north north-east. Two farms received damage. All out buildings on one farm Brocket 1 1/2 N were destroyed and the house was twisted badly with all windows knocked out to make it unliveable. Splinters of boards and 2x4's were driven into the ground from the northeast so deep they had to be sawed off. This farmstead located in Section 32, Lillhoff Township has been hit 3 times since it was homesteaded in 1888. June 16, 1929 at 6:30p an observed funnel blew down a barn and on July 7, 1936 at 9:30p the barn blew down and the debris was all in one direction
Lawton 7 SE, Walsh County	6	11:30p	5	50	0	1	4	0	Tornado
									Tornado moving north northeast destroyed barns on 4 farmsteads, many out buildings and caused heavy damage to one house. One man was knocked unconscious by debris coming through his house. Splinters of boards and 2x4's and the hay track from a barn were driven into ground from east at a 45° angle so deep a tractor was used to pull them out of the ground.
Across Northern 1/3 of State	6	Evening to Midnight			0	4	6	6	Hail, wind, rain & tornadoes
									Very severe thunderstorm cells formed ahead of a low pressure system, one strong cell about 30 miles wide moved east southeast out of northeast Montana during the afternoon through Stanley (at 6:30p) to Minot. Other cells formed further east on this line at Rugby (7p) to Sheyenne (8p). North of this line other cells moved through the Cando, Devils Lake, Petersburg area between 10:00p to midnight. Other cells formed to the south of the line but were not as severe. Crop hail and property hail damage and wind damage was exceptionally heavy in various locations along this line. In the Ray-Ross-Stanley area softball and baseball size hail caused damage to windows, roofs of siding to nearly all the north side of homes, winds destroyed 7 barns, roofs of 2 elevators torn off, another elevator under construction heavily damaged, many out buildings were damaged or destroyed, and severe crop hail damage was reported. In Minot area some crop hail damage was reported, flying debris from a shed hit and injured four persons at Foxholm, 3.89 inches of rain at Minot caused flooding of low areas in the city. In Cando north of Devils Lake and north of Petersburg the storm destroyed some 8 barns, wrecked a house, many out buildings, caused some crop hail damage, rains of 4" reported at Brocket and 3.75 inches at Crary, 70 mph winds at Cando. Tornadoes are summarized separately.
Western and Central part of State	10	Afternoon & Evening			0	0	4	6	Hail, wind and rain
									Three areas received damage from hail and winds: (1) Late afternoon thunderstorm cell moved out of Canada and northeast Montana causing light crop hail damage and damaged several mobile homes in Divide and Burke Counties. An unofficial 3 to 5 inches of rain fell southwest of Coteau; (2) About 4:00p a strong thunderstorm cell with wind, hail and rain moved out of east central Montana into the southwest counties of the state, through the Beach and Golvea areas and caused heavy erosion and some road washouts, crop hail and property hail damage, and winds knocked down 3 towers at Glendive; (3) Another strong cell about 50 miles long and 5 miles wide moved southeast from north of Velya in west central McHenry County to Goodrich in Sheridan County causing severe crop hail damage and caused heavy damage to the north side buildings in Goodrich.
Trails County	12	Early morning			0	0	0	4	Wind & rain
									Wind (50 mph) and rains caused damage to oats and barley from lodging.
Ward County	13	Evening			0	0	0	4	Hail
									Two hailstorms were reported in Ward County one 7 miles long and 1/2 mile wide between Kenaston and Kemare and another strip south of Berthold and Des Lacs.
Emmons and Morton County	17	6:00-8:00p			0	0	0	5	Hail
									Hail storm beginning near Breien moved east between Hazelton and Braddock to near Napoleon causing considerable crop hail damage some light hail damage was also reported southwest Emmons County.
East 1/2 of State	24				0	0	0	4	Hail
									Scattered thunderstorms with hail and wind were reported in Bottineau, Pierce, Steele, Stutsman and Emmons Counties. 100% crop hail loss parts of Golden Lake Township, Steele County and in the Montpelier area in Stutsman County was reported.
Ohio (continued)									
									FUNNEL CLOUDS ALOFT DURING JULY
									County Date Time Location
									Ransom 3 0825p Near Lisbon
									Williams 6 0500p 7 funnels Ray 7 ESE
									Mountrail 6 0515p 3 funnels Ross 1 1/2 W
									Eddy 6 0800p 4 funnels Sheyenne 3 SW
									Walsh 6 1130p 2-3 funnels Lawton 7 SE
									Richland 19 0326p Wahpeton
Ohio Entire State	9	Afternoon evening			0	?	5		C Wind, electrical, rain, and hail
									Severe winds accompanied thunderstorms breaking off tree limbs and causing scattered damage. In Lima, wind blew a circus tent down but no injuries were reported. Lightning set fires resulted in minor damages in several areas. Rains of up to 3 inches were reported but no major flooding occurred. In Meigs County hail and strong winds destroyed some field crops. Motorists said water was up to the bumpers of some cars on Route 50 near Coolville.
Cincinnati, Hamilton County	10	1:30p			1	2	?		Electrical
									A young boy was struck and killed while playing baseball. Two other persons were injured by the same bolt.
Deshler, Henry County	10	6:15p							Funnel aloft
									Public reported a funnel aloft near Deshler.
Antrim, Guernsey County	13	8:45p	2	100	0	5	5		Tornado
									A tornado moving toward the east destroyed a mobile home and three sets of farm buildings. The most extensive damage was on the Dunlap farm where 3 persons were injured and more than 20 cows were killed as the tornado destroyed the house and barn. Two persons were injured in the mobile home which was totally destroyed. Witnesses saw the funnel and heard a roaring noise.
Northern Half of State	15	Afternoon evening			0	0	5		Electrical, wind, rain, and hail
									Violent thunderstorms lashed across the northern half of the State. Trees downed by the strong winds resulted in utility losses in several areas. Hail also fell in many areas. One inch hail fell in Columbus. Several areas reported minor lightning set fires. A \$5,000 fire loss occurred in Lancaster.
Much of State	19	10:00a-8:30p			0	0	5		Rain, wind, electrical, and hail
									Northwest Ohio was hit by torrential rains. Bryan received 4.75 inches; Stryker 4.25; and Archbold 2.2 inches. Wind damage was reported at New Philadelphia, Massillon, Waverly, Steubenville, Carrollton and several other areas. Downed trees and utilities were common victims to these storms.
Farmer, Defiance County	19	11:20a	0.3	200	0	0	4		Tornado
									Several persons watched a funnel cloud as it danced in the sky and finally touched ground in an apple orchard and other fields in a rural area. There were 1000 trees in the orchard and losses were set at \$2000. The storm moved toward the northeast.
Northeast Ohio	23	Afternoon			0	0	4		Electrical and wind
									Lightning struck a Niles home causing \$8,500. damage to the house and contents. Wind losses to farm buildings near Warren were set at \$10,000.
Central Ohio	24	2:00a-2:00p			0	0	4		Rain and wind
									Driving rainstorms caused flooding of many roads and up to six times more traffic accidents than normal. Particularly hard hit was Franklin County where up to 4.32 inches fell in the southeast part of Columbus. Several creeks rose to the tops of their banks but no major flooding was reported. Strong winds accompanied many of the showers causing trees to fall on utility lines.
Waterford, Washington County	24	2:00p	1	33	0	0	5		Tornado
									A small tornado caused damage on four farms. Trees were twisted and nearly all the roofing was torn from

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
Ohio (continued)										
West Central Ohio	26	Morning after-noon			0	0	5		the air for on one home. Electrical, wind, and rain	
									Lightning caused substantial damage to a Sidney home. A summer rainstorm accompanied by strong winds struck parts of Centerville and Kettering (Montgomery County) and damaged roofs, uprooted trees, and left residents without utilities.	
Newark Area, Licking County	28	10:02p							Funnel aloft	
									Licking County Deputy Sheriff sighted a funnel aloft 30 miles east of Columbus.	
Oklahoma Snyder, Kiowa County	2	4:30p.-6:15p.			0	0	4	0	Wind	
									Winds estimated at 60 MPH caused scattered property damage.	
West of Pawmuka, Osage County	5	About 2:00p.			0	1	0	0	Lightning	
									A teen-age girl was injured when struck by lightning at Lake Bluestem.	
West of Lula, Pontotoc County	17	10:00a.	1/4	?	0	0	4	0	Tornado	
									A small tornado demolished a mobile home and a new car.	
Tulsa, Tulsa County	22	About 7:00p.			0	1	0	0	Lightning	
									Lightning struck an airlines employee at Tulsa International Airport.	
Frederick area, Tillman County	23	Afternoon							7 Funnels aloft	
Hooker, Texas County	27	About 4:40p.			0	0	0	0	Hail	
									One and three-fourths inch hail caused no reported damage.	
South of Drummond, Garfield County	28	12:03a.			0	0	4	0	Lightning	
									Lightning struck an eight-inch gas pipeline setting it afire.	
Oregon Eastern Oregon	3, 7	Mornings					0	5	Cold Spell	
									Most of eastern Oregon experienced subnormal minimum temperatures both days with many stations in the northeastern quadrant of the State receiving record or near-record cold lows on the 7th. Seven stations came within 2 degrees of equalling their previous record while six stations equaled previous records; Enterprise, 28° set in 1940; Pendleton Experiment Station, 33° set in 1962; John Day, 35° set in 1962; The Dalles, 39° set in 1917; Arlington, 42° set in 1899; and Pendleton Airport, 42° set in 1955. New July record minimum were established: Kent 32°, exceeding a 34° set in 1924; La Grande 32°, exceeding a 35° set in 1911; and Milton-Freewater 4 NW 38°, exceeding a 40° set in 1943. Most stations during this cool period experienced average weekly temperatures of 6-9 degrees below normal. Frost damaged some hay and pea fields in the La Grande valley.	
Haines, Baker County	9	6:15-6:30p	4	1	0	0	3	4	Hail	
									A hailstorm moved northeastward across the Rock Creek-Muddy Creek area just north of Haines. Hailstones averaging 3/4 to 1 inch in diameter caused extensive crop damage on 6 farms. The hail ruined roofs and broke windows at 4 other homes. Hailstones piled up 3-4 inches deep in ditches.	
La Grande area, Union County	9	about 7:00p	2	*1/2			0	5	Hail	
									A hailstorm moved eastward across the valley causing greatest damage to cherries near the city of La Grande and at Island City where some orchards were a total loss. Some barley fields also hurt. Hailstones averaged 1/4 inch in size and were 1/2 inch deep on ground in places. Largest stones ranged up to 1/2-inch size.	
Jackson County	21	about 7:30p	20	*5	0	0	4	0	Wind and Electrical	
									Thunderstorms in the Medford-Ashland area caused mostly light rainfall but damaging winds. The storm lasting about 30 minutes in places provided up to 0.48 inch of rain just outside Phoenix. Some non-damaging hail up to 1/2-inch size was also reported near Phoenix. Lightning (wind-blown lines), and downed limbs in the valley caused about 2,100 scattered power outages, light damage to a few roofs, 2 dozen telephone lines and uprooted a large tree at Ashland which demolished an automobile. Eleven lightning set fires were also reported in nearby forest areas.	
Oregon (continued)										
Northern Cascades and Eastern Oregon	30-31	all day						7	7	Electrical
										Southerly winds aloft over Oregon brought high level moisture into the State which triggered lightning storm activity. Some 39 lightning set fires developed during the afternoon and evening of the 30th with most fires reported in the Deschutes and Malheur National Forests. Similar activity on the 31st also moved into eastern Oregon and National Forests recorded another 155 fires. Total acreage burned on both days was less than 45. The BLM Fire Control offices also reported another 40 such fires on their grazing lands with largest acreage burned to the west of Burns in the Dry Mountain area. Smoke resulting from these blazes caused bad smoke conditions in the Willamette Valley where additional grass seed acreage was being burned off.
Pacific 4 miles NW of Koror Weather Station	26	6:40 p.-7:10 p.								Funnel cloud
										Slender rope-like funnel cloud slightly darker than smooth base of parent cloud extended downward to approximately 100 feet of ocean surface in light rain showers from lone towering cumulus cloud with base estimated 1,800 feet and top less than 15,000 feet. Movement was not discernible.
5 miles NE of Weather Station, Wake Island	31	12:26 p.-12:30 p.								Funnel cloud
										Funnel cloud moving westward in light rain showers extended downward approximately 500 feet from cumulus congestus cloud with base estimated 1,800 feet and top 9,000 feet.
Pennsylvania Eastern third of State	1-2	Mid-afternoon to early morning			0	3	4	3		Lightning, hail, wind, rain
										Three carpenters were injured when an arched-roof barn under construction was completely demolished near Susquehanna. Minor accidents occurred in the Norrisville area due to reduced visibility and wet pavement. Many basements were flooded and a large maple tree was struck by lightning about 3 AM and toppled onto a roof and porch. Wind and lightning caused widespread damage throughout the Lehigh Valley. Lightning struck a tree which damaged a car in its fall. In Quakertown branches from trees were torn off along Route 663 and lightning struck a home about 7:30 PM causing minor damage. An estimated \$1,000 damage was caused by fire attributed to lightning on the Unsted State Airport grounds near Harrisburg. In Middletown a frame house was damaged by smoke and water after it had been struck by lightning. Near Allentown lightning was the cause of the death of a bull and splintered a tree which damaged a car. Hail was reported in the Philadelphia area. There were reports of power failures throughout the eastern part of the state with reports of minor damage due to lightning. In Lancaster County rain washed out field crops and flattened some in the Columbia area. Winds gusting at 50 mph toppled trees and blew a house under construction from its foundation near Lititz. \$1,000 damage resulted when lightning struck and burned a hay shed in Ephrata at 1:07 PM. Two airplanes at Lancaster Airport were damaged when winds blew one over and the other against a hangar door. A house trailer was blown off its foundation in Ephrata and at Silver Spring several telephone poles were downed and some hail was reported. The storm which moved from Ephrata southwest toward Columbia blew the roof off a garage in Silver Spring. Lightning struck a home in Leola and caused about \$700 damage.
Lebanon County	9	Late afternoon			0	0	3	0		Wind
										A chicken house near Frytown was destroyed by heavy winds. There were reports of downed trees in various areas of the county and telephone and electric service disruptions between Lebanon and Palmyra.
Blair County	9	Afternoon			0	0	3	0		Lightning
										Fire started by lightning caused an estimated \$5,000 damage to a two and half-story frame house in Altoona.
Washington County	9	Morning			0	0	2	0		Lightning, rain
										Lightning struck a chimney and knocked a hole in the roof of a Candenburg house at about 10:20 AM. In Washington streets were flooded by heavy rain.
Greene County	13	10:15 p.m.			0	0	2	0		Lightning
										Lightning knocked down two 4,000 volt power lines interrupting electric service in Waynesburg.
Fayette County	13	10:45 p.m.	25	70	0	4	5	0		Tornado
										A tornado touched down along the south edge of Smithfield, moving from west-northwest to east-southeast. Intermittent damage occurred along a line from Smithfield to Haydenville and White House. The funnel cloud again touched down briefly near Gibbon Glado. A large barn and several smaller dwellings were destroyed and large trees uprooted near Smithfield. The heaviest damage occurred at White House, where a persons were injured when a house trailer was demolished. Roofs were torn off, power lines downed, and utility poles and large trees uprooted.
Dauphin County	17	1:30 p.m.			0	0	4	0		Lightning

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS		
Pennsylvania (continued)										
Mercer County	19	Afternoon			0	1	3	0		Wind, hail
										Lightning caused a fire which destroyed a four-den barn on a farm between Gratz and Pillow. Loss was estimated at \$25,000.
Blair County	19	5:20 p.m.			0	0	2	0		Wind, rain
										Large trees were felled by wind throughout the area with some falling on tents, trailers and power lines. Hallstones like golf balls were reported along the Sharpville Dam area. At Shenango River Lake a bait trailer was overturned and injured the occupant. Damage was estimated at \$5,000. A house under construction collapsed in Clark and wind broke off masts on sailing boats.
Allegheny and Westmoreland counties	19	6:25 p.m.			0	2	4	0		Rain, wind, lightning
										Severe winds accompanying a thunderstorm caused damage to trees and gardens in the Martinsburg area and interrupted electric service to some 700 customers.
Allegheny County	23	Afternoon			0	1	2	0		Lightning
										In North Versailles an infant and woman were injured when the trailers in which they were living were overturned by wind. Several basements were flooded, small buildings leveled, and trees uprooted which caused power failures and telephone outages. Lightning struck a barn near New Alexandria and caused an estimated \$25,000 damage most of which was to farm equipment.
Lehigh, Chester, Berks counties	25	Afternoon			0	1	3	3		Rain, lightning
										A man servicing a plane at the Greater Pittsburgh Airport was injured when the plane was struck by lightning.
Clearfield County	26	Evening			0	0	3	0		Wind, lightning
										Heavy downpour caused some damage to grain fields in central Berks County. In Allentown lightning burned the roof off a split-level home and falling debris and water damaged the contents. A Valley Forge State Park guard was struck by lightning as he was standing beside his patrol car outside the park recreation center.
Schuylkill, Chester, Lebanon counties	26	Evening			0	0	3	0		Lightning, rain
										High winds and some hail struck the lower Moshannon Valley area and damaged two homes. Some 700 customers were without electricity for several hours and a bolt of lightning hit a television set.
Columbia, Montour, Luzerne counties	29	Afternoon			0	0	5	0		Rain, wind, lightning
										Heavy rain caused numerous power failures and flash flooding in several areas. Three accidents on Route 100 in Chester County were attributed to the rain.
Adams County	29	3:35 p.m.			0	0	4	0		Lightning
										Numerous cellars of residences and businesses throughout the area were flooded due to heavy rain. High winds felled trees which caused power interruptions. Lightning destroyed two barns. One was located off Route 187 at Orangeville with loss estimated at \$30,000. The loss of the burned barn at Danville was estimated at \$25,000. Run-off water from U.S. Route 11 near Berwick washed large "hatching bins" and scales from a cement block factory site. Loss was estimated at \$25,000.
Berks, Lancaster, Chester counties	29	Evening			0	0	4	0		Lightning, rain
										Lightning caused a fire that destroyed a large barn containing 30 tons of hay on a farm on Route 4, two and a half miles south of York Springs.
Franklin County	30	10:30 p.m.			0	0	2	0		Lightning
										Lightning destroyed a bedroom and bathroom in a Mohnton home near Reading. There were reports of minor damage due to lightning throughout the area. In Leola the flat roof of a manufacturing building caved in under the weight of rain water. Damage to stored cabinets and a varnishing booth was extensive. Lightning damage to corner of a house in Spring City.
Puerto Rico										
		None	Reported							
Rhode Island										
Statewide	19	p.m.			0	0	5	4		Thunderstorm
										Heavy downpours caused considerable damage from flooding especially in Warwick, West Warwick, Providence and Cranston. In the south, potato and corn crops in some places were extensively damaged. In South and West Kingstown, lightning-set fires damaged a dozen buildings and destroyed one and wind damaged trees and destroyed an old barn.
South Carolina										
Sumter County	1	6:00 p.			1	0	0	0		Thunderstorm, lightning
										A farmland was struck by lightning while working on top of a cotton machine about one mile east of Mayaville near the Suster-
South Carolina (continued)										
Lee County line.										The man died on the way to the hospital.
City of Columbia	2	Evening			0	0	5	0		Thunderstorm, heavy rain
										Over three inches of rain in about one hour's time caused local flooding in several low areas in Columbia. Damaged were some stores and merchandise in them, homes and furnishings, automobiles, streets and bridges. The Congaree River, which runs through Columbia, did not overflow. The flooding was due simply to the rapid rate and large amount of rainfall. The existing drainage system was taxed way beyond its capabilities.
Beaufort County	12	7:30 p.			0	0	4	0		Thunderstorm, lightning
										Lightning set fire to a house just outside of the city of Beaufort and the house burned to the ground despite the belated efforts of firefighters.
Beaufort County	24	10:45 a.			0	0	0	0		Waterspout
										A waterspout was sighted over the Atlantic Ocean near Hilton Head Island.
Florence County	26	Late Afternoon			0	0	4	0		Thunderstorm, lightning
										Lightning set fire to the Mt. Tabor church in the Evergreen Community about 10 miles south-southeast of the city of Florence. The church, on which construction had just been completed, burned to the ground before fire fighting equipment could control the fire.
Charleston County	29	8:48 a.			0	0	0	0		Waterspout
										A waterspout was sighted over the Atlantic Ocean about 15 miles south-southeast of the city of Charleston.
Lee County	30	4:00 p.			0	0	0	0		Funnel cloud
										A funnel cloud sighting was reported 5 miles south of the city of Bishopville.
Florence County	30	6:30 p.			0	0	0	0		Funnel cloud
										A funnel cloud sighting was reported near the Florence Municipal Airport.
South Dakota										
Hand, Beadle, Eastern Buffalo and Jerauld Counties	3	5:10 - 6:40 p	About 50	*1-6	0	0	4	5		5 Tornadoes, 9 funnel clouds and hail
										Storm moved generally to the E and SE. Fourteen funnel clouds were sighted from about 24 miles southwest of Miller with 5 touching ground and moving E to SE in a skipping fashion. Funnel clouds and tornadoes were also sighted in the Westington, Wolsey and Virgil areas and were perhaps the same funnel clouds as sighted in the Miller area. The tornadoes damaged or destroyed buildings on several farmsteads. Hail averaging 2 inches with the largest 4 inches also accompanied the storm. The hail caused considerable damage to crops and some damage to buildings.
Winner, Tripp County	4	7:30 p			0	1	5	0		Wind
										Strong winds destroyed 5 and damaged 3 camper trailers for a loss of \$55,000 in a camper sales lot. A 16-year old boy was hospitalized with injuries received when a trailer he was in tipped over.
SESE Stratford, Brown County	5	9:05 p			0	0	0	0		Tornado
										Tornado apparently touched down in open country with no reported damage.
Meadow-Bison Area, Perkins County	6	5:10 - 5:40 p	20	*7	0	0	4	5		Hail and wind
										Hail averaging 1 inch with largest to 2 inches caused up to 100% loss to crops in area with some damage to windows.
Lyman and Brule Counties	9	6:30 - 9:00 p			0	7	5	5		2 Tornadoes, wind and hail
										Greatest damage occurred in the Lower Brule and Reliance areas apparently from tornadoes with considerable damage also reported in the Kennebec and Chamberlain areas. A water tower was blown over at Reliance where strong winds and hail damaged buildings, mobile homes and automobiles. Some building damage was also caused to farmsteads in the area. Hail of 1/4 inch to baseball size caused considerable damage to crops. Storm moved from NW to SE. A Volkswagen bus was blown over into a ditch while parked on the side of the road injuring 7 persons inside.
Yankton-Volin Area, Yankton County	9-10	10:30 p - 1:00 a			0	0	0	4		Wind and locally heavy rain
										Winds of up to 60 MPH caused damage to crops and trees. A 24-hour official rainfall of 3.70 inches was reported at Yankton with unofficial amounts of up to 5 inches reported in the area.
Perkins, Corson, Ziebach and Dewey Counties	10-11	11:30 p - 2:30 a	100	*15-20	0	0	4	6		Hail and wind

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
South Dakota (continued)									
SW Perkins County	11	8:15 - 9:00 p	20	*6	0	0	4	4	Hail
The hail path extended out of North Dakota across NW Perkins County to Glad Valley, Isabel and Ridgeview areas. Hail varied from marble to baseball size. The storm moved from NW to SE causing up to 100% crop damage along its path. Some building damage was reported. The storm was reported as one of the worst that occurred in the area for many years. It was estimated that one-third of the crop in the Isabel was lost.									
Aberdeen, Brown County	24	3:44 p							Funnel cloud
Hail averaging 1 3/4 inch with largest to 3 3/4 inch killed 50 head of sheep as well as some antelope and rabbits. Spotty damage was caused to crops.									
Near Chamberlain, Brule County	24	5:25 - 6:45 p	3	300	0	0	4	3	Tornado
Storm moved from NW to SE. A grain elevator, five grain bins, a hanger and an airplane were destroyed.									
Much of State	30	early a.m.			0	0	0	5	Damaging Frost
Minimum temperatures in the low to mid-thirties caused damaging frost to crops in spotty areas of the State, mostly in the low areas. The Bruce area received some of the most extensive corn damage in the nation on the 30th. La Delle 7 NE reported a low of 30° which was the lowest in the nation on the 30th.									
Tennessee (continued)									
Waverly, Humphreys County	15	p.m.			0	0	4	0	Wind, lightning, rain
Wind downed trees and utility lines, blew out windows, damaged several roofs. Lightning struck a few homes.									
Columbia, Maury County	16	6:00 a.m.			0	0	4	0	Lightning
Lightning caused fire, damaged Hewley's Music Shop in Columbia. Damage was estimated at \$25,000.									
Blount and Sevier Counties	19				0	0	5	0	Rain, flooding
Nighttime thunderstorms produced intense downpours of rain in mountains, with totals of 2.0 to 6.0 inches in wide areas of Blount and Sevier Counties. Flash flooding of streams forced evacuation of some 30 to 50 persons in the Townsend area, as many streets and highways along the Little Pigeon River and Little Rivers overflowed their banks.									
Greene County	21	5:00 p.			0	0	?	?	Hail
Hailstones 1 inch in diameter reported in the Greeneville area.									
Chattanooga, Hamilton County	25	p.m.			0	0	4	0	Lightning
Lightning was cited as the cause of a fire that damaged Howard High School auditorium. Damage was estimated at \$5,000.									
Maury County	29	p.m.			0	0	4	0	Wind, lightning
Damage occurred at Columbia.									
Texas									
Middle and Lower Nueces River, Southern and South Central Texas	1-19				0	0	5	3	Flooding
Heavy rains near the end of June, as much as 13.75 inches within 24 hours at Harrison Ranch and 8.90 inches within 24 hours at the Light Ranch, both west of Artesia Wells resulted in extensive flooding of the middle and lower Nueces River during the first three weeks of July. Total property damage was estimated at \$56,000, and crop damage, principally pecans, was estimated at \$2,000. Forty-five residential dwellings were flooded and 50,000 acres of farm land was inundated. Flood crests occurred on the first and second at the Turkey Creek junction with the Nueces at Crystal City, on the Nueces near Asterton, and on the Nueces at Cotulla. Major flooding occurred at Cotulla, and the crest there was the third highest of record. The Nueces at Tilden 11 South reached flood stage on the second and became extensively flooded on the third from water which had entered below Cotulla. Extensive flooding began abruptly at Three Rivers 2 South on the 5th, and a crest near 15 feet above flood stage occurred on the 7th. Extensive flooding from Three Rivers 2 South to Lake Corpus Christi continued for about a week thereafter. Lake Corpus Christi rose to the top of Wesley Seale Dam and began spilling over on the morning of the 9th. Extensive flooding moved rapidly down river below the dam, with flood stage reaching Calallen on the 11th. Extensive flooding occurred through the 16th. The water fell below flood stage at Calallen on the 19th.									
El Paso, El Paso County	2	4:00 a - 8:00 a	?	?	1	1	5	0	Flash flooding
Considerable flash flooding of streets, arroyos and drainage ditches occurred in the metropolitan area of El Paso as a result of 1.36 to 2.20 inches of rain that fell within a four hour period. John W. Grantham, 62, of 929 Apple Lane was drowned when his automobile was swept off the bridge over a drainage canal at Lamar Street and Bliss Avenue. The automobile was pushed by the force of the water in a southerly direction 200 yards into the canal. One of the volunteer rescue workers, Santiago Badillo, crushed his leg between the bridge and a car, when the car turned in the swift current. On Brown Street, a 36-inch main water pipe broke loose adding additional flood waters in the 1600 block of Brown Street. Total property damage including residential property, city property, railroads, highways, bridges and dams was estimated at \$95,000.									
Eules, Tarrant County	2	2:00 p - 2:30 p	**600	200	0	2	4	0	Windstorm
A severe windstorm struck a 2-by-6 block area of Eules. Two persons were injured when the plate glass window and a door were blown out of a service station. The roof was blown completely off the station also. Barry Crawford, 15, was seriously injured when the flying glass cut a huge gash in the back of his head. William F. James, a trucker, was wounded on his back, legs, neck and arms when the station door wrapped completely around him. The service station was completely demolished.									
N Nederland, Jefferson County	2	6:15 p							Funnel aloft
Pleasure Island, Orange County	3	12:50 p			1	0	0	0	Lightning
Otey Broadway, 30, was struck and killed by lightning while fishing from the seawall on Pleasure Island. Broadway's wife was fishing with him. She told Justice of the Peace Fulton Lee that the bolt also stunned her. Mrs. Broadway though suffering from shock, was uninjured. Judge Lee said Broadway was fishing with a metal fishing rod. Several coins in the pocket of the victim were welded together by the force of the lightning bolt.									
Near Red Springs, Bowie County	6	6:00 p	1/4	10	0	1	4	0	Tornado
A tornado, accompanied by other damaging winds and hail skipped along a path from a point 10 miles northwest of Paris to 10 miles east-southeast of Paris. Communities affected included north Cottage Grove, Whitlock, northeast Paris, India, and Springville. Property damage was heaviest in India, where the tornado was on the ground for a distance of 1/4 mile. Two trailer parks and four businesses were heavily damaged at India. In addition, roofs were blown off the Silver Hook Cafe, Tavern Twilight Acres Laundry, Medlock's Grocery, and Paris Plumbing and Supply Store. Six persons were slightly injured and several farms sustained damage. Major damage occurred at the Paris-Henry County Airport, where five planes and a hanger sustained severe damage. Total property damage was estimated at \$175,000.									
Damaging winds and hail accompanied the storm system through Henry, Carroll, Benton, Tipton, and Hardin Counties. Hail averaged about 1 inch in diameter, but hailstones up to 2 inches in diameter fell across central Tipton County. The U. S. Department of Agriculture Disaster Committee estimated total damage to crops due to wind and hail at \$14,000.									

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED ¹ DAMAGE	CHARACTER OF STORM	PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED ¹ DAMAGE	CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS								KILLED	INJURED	PROPERTY	CROPS		
Utah 15 miles West of Hill Field AFB	4	06:55 m.s.t.			0	0	0	0		Funnel Clouds	Virginia (continued)										Heavy rain flooded streets, buildings, basements, and yards causing damage and depositing debris. Machinery and product materials were damaged by water at one location. Rugs in an office building were soaked, and several other buildings had water inside but with only minor damage.
Salt Lake, Davis Weber and Box Elder Counties	18	Eve			0	0	4	0		Damaging Winds	Washington Seattle area	5				0	0	3	0		Thunderstorm Thunderstorm over north Seattle and adjacent communities. Lightning bolts demolished several trees and damaged two homes. Some streets flooded during heavy showers.
Anabella and Monroe in Sevier County	19-20	Evening			0	0	4	3		Flash Flooding	Northeast	28				5	5				Thunderstorm Violent thunderstorm moved through northeastern Washington, east from Republic, to north of Kettle Falls and Colville, then south to north part of Spokane. Strongest winds northwest of Colville blew down one and one-half million board feet of timber in tree farm area. Golfball-size hailstones destroyed many farm crops and damaged powerlines. Farm buildings and homes damaged. Flash floods damaged farm lands by erosion; roads and bridges washed out in places.
Western Cache Valley	21	Late Aftn			0	0	3	5		Hailstorm	West Virginia Sissonville Kanawha County	11	3:30 p.m.			1	0	4	3		Cloudburst An area about 8 miles in diameter about 10 miles north of Charleston sustained flash flooding on the left fork of Tupples Creek. Waters receded about 8:15 p.m. A rainfall total of over 5 inches was estimated from the flooding, which damaged 6 houses, 15 cars and trucks, 3 miles of state roads, washed out 12 bridges and flooded 20 acres of gardens and crops. A 19-year old boy was killed by a live wire as he rescued another boy who had slipped and fallen into the flood waters.
Vermont State	1	P.m.			0	0	4	0		Wind, lightning, rain	Glade Farms Preston County	13	11:24 p.m.	?	100	0	0	4	0		Tornado A tornado which earlier had touched down in Smithfield and Haydentown, Pennsylvania (20 miles northeast of Morgantown) evidently continued on its northwest to southeast course and did considerable damage to the homes of 4 families in this small community 3 miles south of the border (and about 25 miles east-northeast of Morgantown). A man driving on Route 26 had his car turned around. Participants at the county's 4-H camp, about 3 miles from Glade Farms, said the twister sounded "like a freight train going by" for about a minute, followed by a "very, very hard rain".
Rutland County	16	p.m.			0	0	4	0		Wind, lightning	Boone and Lincoln Counties	18	9-10 p.m.			0	0	5	0		Cloudburst Heavy rain occurred in a 10-15 mile diameter and covered parts of Boone and Lincoln Counties. The hardest hit section was in an area bordered by Yawkey, Alkol and Julian in Lincoln County, on the left fork of the Mud River. Old-timers said that this was the first flooding in their area since 1916. The downpour lasted about 50 minutes and turned the small creek into a river. One house was carried away and 6-7-foot chunks of black-top were observed being carried about 100 yards downstream before they sank. Many small bridges were washed away and over 15 roads were damaged in the area.
Corinth	24	evening			0	3	4	2		Wind	Jackson County	19	afternoon			0	0	5	5		Cloudburst A flash flood occurred about 2 p.m. in the vicinity of Fairplain on Grasslick Run. About 100 basements were flooded, streets and bridges sustained considerable damage, and dollar damage to crops (gardens, corn and hay) were estimated to be \$200,000 by the County Agricultural Agent due to the inundation of 3000 acres. Some wind damage was reported in nearby Henderson and Point Pleasant in Mason County.
Virgin Islands		None	Reported								Fayette County	21	5-6 p.m.			0	0	4	0		Cloudburst A flash flood occurred during the evening in the Oak Hill-Minden-Minersville area on Arbuckle Creek, which was turned into a raging torrent. The thunderstorm had high winds in addition to the intense rain. The main damage was sustained by homes, furniture, and cars.
Virginia Roanoke Area	1	Near 1:12 p.m.			0	0	4	0		Wind, lightning, water	Green Bank Focahontas County	21	7:30-9 p.m.			0	0	0	2		Hailstorm An average 6-inch depth of 3/4 inch hailstones fell during a 15-minute period over a valley area about 1/2 mile wide and 3 miles long between two mountains in northern Focahontas County. The night sky was turned a brilliant pink about 7:45 p.m. during the height of the intense thunderstorm which dumped up to 3 inches of rain on nearby areas. The storm apparently dropped the hail in batches. Some drifts were up to 4 feet. At 9 a.m. the following morning, after 3 hours of sunshine, some piles of hail in ditches still measured 30 inches in depth. One man reported his garden frozen and ruined. The corn was shredded, the tomato plants stripped and the fruit bruised. The major portion of the storm occurred between two mountains, the Allegheny and the Cheat, which contain both Green Bank and Wesley Chapel between them. One 40-year old native of Green Bank observed he had never seen anything like it.
Roanoke	6	Near 2 p.m.			0	0	4	0		Rain	Wisconsin Ozaukee County	6	3:45 p			0	0	5	0		Lightning Lightning fire destroyed 21-unit motel. Damage estimated near \$200,000.
Lynchburg Area	9	Near 7:30 p.m.			0	2	4	0		Lightning, rain, wind	State	7-8	Night			0	0	5	5		Wind, lightning, hail Heavy thunderstorms crossed Wisconsin late on the 7th and early on the 8th doing widespread minor damage. Some crop damage in northwestern counties and also across the south. Lightning fires destroyed barns on Abel and Seefeldt farms in Washington County, and the Pagelow farm in Dodge County. Historic building burned at Fort Atkinson. Two buildings damaged by lightning in Madison. Ten milk cows killed by lightning under tree in pasture near Hales Corners.
Orange County	12	Afternoon			0	0	3	0		Hail											Hail as big as golf balls fell in the Mine Run, Rhoadesville, and True Blue areas. Several broken windows and dented cars were reported and some corn was severely damaged by the hail.
Wise County	12	Morning			0	0	4	0		Rain											Several bridges crossing the Powell River were washed out, fences were swept away, and roads were covered with water. Several homes in the Beantown section were flooded.
Hopewell	27	Afternoon			0	0	4	0		Rain											

See reference notes at end of table.

STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1971

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
Wisconsin (continued)									
Wood County	8	2:00 a	2	75	0	0	0	0	Tornado
		Small tornado moved eastward through open country just north of Wisconsin Rapids doing damage to trees. One house trailer moved off foundation.							
Grant County	8	3:45 a			0	0	0	0	Funnel aloft
		Funnel aloft reported near Lancaster.							
North Half of State	12	am & pm			0	0	5	4	Wind, waterspouts, lightning
		Severe thunderstorms crossed northern Wisconsin. Numerous trees down. Hangar blown down at Rice Lake crushing aircraft. Mobile home demolished at Barron. Extensive tree and wire damage in Oneida and Forest Counties and near Sturgeon Bay on Door Peninsula. Several waterspouts reported over the Bay of Green Bay. Seven calves and one pony killed by lightning at Bailey's Harbor.							
Outagamie County	16	3:15 p			0	0	4	0	Wind
		Strong winds toppled factory wall under construction at Little Chute. Also minor wind damage elsewhere in state.							
Trempealeau, Jackson, Monroe Counties	18	2:00 p			0	0	5	6	Wind, Hail
		Heavy wind and hail damage as severe thunderstorms moved through area on an ESE course. Several barns leveled near Melrose, Cataract, French Creek, West Germany. Hail covered ground in many areas and several cranberry growers in Warrens area sustained severe losses. About 50,000 acres of cropland sustained hail damage in Jackson County with losses estimated at \$700,000.							
Monroe County	18	2:00 p	10	100	0	0	5	0	Tornado
		Tornado destroyed several barns along path from south of Melrose ESE-ward to near Cataract.							
Dunn, Chippewa and Eau Claire Counties	18	3:35 p	40	100	1	2	5	5	Tornado, hail
		Tornado moving ESE-ward first touched down demolishing farm buildings on William Quinn farm 3 S Downing. Additional damage was reported north of Menomonie. Major damage occurred at 4:46 p in trailer court in town of Seymour east of Eau Claire. Twelve mobile homes damaged, seven beyond repair. One person killed as fire erupted in debris. Hail and heavy rains battered crops along path.							
Bayfield-Ashland Counties	21	4:30 p			0	0	3	0	Hail
		Hail the size of golf balls in Ashland area.							
Douglas County	21	6:00 p			0	0	3	0	Hail
		1-inch hail in Solon Springs area.							
Washburn County	21	8:30 p	5	100	0	0	3	0	Tornado, hail
		Tornado moving SE-ward touched down at Spooner 10 ENE near CTH E and M. A 54-foot corn crib on Roy Solomon farm picked up by funnel and deposited on a car doing moderate damage to same. Trees stripped by hail west of Minong. Hail also fell near Trego and Spring Brook.							

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
Wisconsin (continued)										
Wood County	22	+	Night			0	0	3	0	Rain, Lightning
	23									
		Heavy thundershowers in Wisconsin Rapids area set off several minor lightning fires. Also some basement flooding from 3 to 4 inch rains in area.								
Lafayette County	25	4:00 p	1	100	0	0	4	0	Tornado	
		Tornado moving ENE-ward touched down briefly and destroyed barn on Judkins' farm at SW Darlington. Also some tree damage in area.								
Winneshago County	30	7:00 a			0	0	0	0	Waterspouts	
		Numerous small waterspouts over Lake Winneshago east of Oshkosh and elsewhere as cold air with large cyclonic vorticity moved out over warm lake.								
Wyoming										
Laramie 10 WSW	7	5:50 p.			0	1	0	0	Lightning	
		Lightning struck near two men, injuring one of them.								

- o Includes crop damage.
- C Crop damage.
- * Miles instead of yards.
- ** Yards instead of miles.
- † Storm damages are placed in categories varying from 1 to 9 as follows:
 - 1 Less than \$50
 - 2 \$50 to \$500
 - 3 \$500 to \$5,000
 - 4 \$5,000 to \$50,000
 - 5 \$50,000 to \$500,000
 - 6 \$500,000 to \$5 Million
 - 7 \$5 Million to \$50 Million
 - 8 \$50 Million to \$500 Million
 - 9 \$500 Million to \$5 Billion.

Note: This publication contains our best information on storms but, due to the difficulties inherent in collection of this type of data, it is not all-inclusive. Delayed data and corrections will be carried in the June and December issues of this publication.

SUBSCRIPTION PRICE: 15 cents per copy; yearly subscriptions \$1.50 domestic, \$2.00 foreign. Checks and money orders should be made payable to the superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to "Superintendent of Documents, Government Printing Office, Washington, D. C. 20402."

USCOMM-NOAA-ASHEVILLE, N. C. -9/1/71-1275